NATIVE AND NON-NATIVE TEACHERS' DISCOURSE IN EFL CLASSROOMS: ENGLISH, MANDARIN, CODE-SWITCHING AND THE USE OF *OK*

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List of Symbols of Transcription

Speakers	
Speaker identity/turn start	:
Transitional continuity	
Final	.
Continuing	,
Appeal	?
Pause	
Medium	…
Short	..
Vocal noises	
Laughter	@
Transcriber's perspective	
Researcher's comment	(( ))
Indecipherable syllable	X

Chapter 1 Introduction

1.0 Preliminaries

Code-switching (CS hereafter) occurs when a speaker alternates between two or more languages. It is taken for granted as a common feature among bilingual or multilingual speakers. However, CS in a second language or a foreign language (L2 hereafter) classroom has been debated for decades (Lin, 2013). On the one hand, the L2's 'virtual position' (Macaro, 2005) in a classroom is valued. The proponents argue that the L2 which is also the target language in a classroom should be the only medium for communication. Therefore the learners' L1 (first language) needs to be banned. This theory was accepted by some national educational agencies and impacted on their educational policies, for example in Canada (Atlantic Provinces Education Foundation, 1997), the United Kingdom (Department of Education and Science, 1988: 12) and South Korea (Liu et al., 2004). On the other hand, the 'optimal use' of learners' L1 (Macaro, 2009) in an L2 classroom is appreciated for improving classroom communication and enhancing learners' learning efficiency. Various empirical studies provide evidence that L1 can be used strategically and is helpful, rather than harmful, to learning.

Most studies focus on whether the learners' L1 should be included or excluded. However, a few studies have asked how native-speaking (NS) teachers and non-native speaking (NNS) teachers code-switch in their classrooms. Does the relative competence of NS teachers in the learners' L2 guarantee a more comprehensive L2 input than that of NNS teachers? Do NS and NNS teachers' CS have different linguistic structures and pragmatic functions? How do NS and NNS teachers' CS relate to their interactions with students? Comparisons between NS and NNS teachers' language alternations have not yet been widely offered, but given that NS teachers and NNS teachers are teaching a target language to their students, we cannot neglect this topic. English teaching and learning, for example, is the most important second/foreign language pedagogy in the world where 'the overwhelming majority of teachers worldwide [are] non-natives' (Arva & Medgyes, 2000) and the ratio of non-natives to natives is steadily growing. This study is therefore encouraged to add what it can to the study of the linguistic input of NS and NNS teachers.

This chapter, to begin with, explains CS in more detail and goes on to give an overview of the entire study, including its aim, its research questions and what is included in each chapter.

1.1 What is code-switching?

The broad view of code-switching (CS hereafter) is that it refers to the alternating use of more than one language or dialect in a discourse. It is viewed as a common feature among bilinguals, who speak two languages fluently, or multilinguals, who speak more than two languages fluently. 'Bilinguals' or a 'multilinguals' here takes a wide view in terms of these people's language comprehension: such speakers are defined as those who competently manipulate the languages. Some researchers define a 'bilingual' relatively strictly. Bloomfield in 1933 provided a definition that a bilingual is an individual who has native-like control of two or more languages (Bullock and Toribio, 2009:7). This bilingual acts as 'two monolinguals in one', a metaphor created by Grosjean (1998). Furthermore, Poplack sees a 'true' bilingual as one who learns both languages in early childhood (Poplack, 1980:609).

As described by Bullock and Toribio (2009:2), CS is involved in many contexts. Apart from the bilinguals' or multilinguals' competence in the languages, the levels of CS are also considered. It may range from the insertion of a single word to larger segments of discourse. Poplack defines CS as an alternation between two languages 'within a single discourse or a constituent' (Poplack, 1980:583) and categorizes it 'according to the degree of integration of items from one language (L1) to the phonological, morphological and syntactic patterns of the other language' (L2) (Poplack, 1980:583). In addition, CS may be deployed for various reasons: 'filling the linguistic gaps, expressing ethnic identity and achieving particular discursive aims' (Bullock and Toribio, 2009:2).

Given the complexity of CS, it is not surprising that categorizing CS is difficult. Poplack's (1980) types of CS is one of the most widely used models. She proposes 'intra-sentential CS', 'inter-sentential CS' and 'tag switches'. Intra-sentential CS, language alternation within clause boundaries, as suggested by Poplack (1980), requires an advanced level of bilingual proficiency. An example, Extract 1.1 is found in the title of Pollack's seminal article.

Extract 1.1 English-*Spanish*

Sometimes I'll start a sentence in Spanish ***y term no end Española***.

"and I finish in Spanish"

(Poplack, 1980: 581)

In contrast to intra-sentential CS, inter-sentential CS, as shown in Extract 1.2, refers to an alternation occurring at a clause boundary, with each clause fully produced in one language or the other. Poplack (1980) also identifies 'tag switches' sometimes called 'emblematic switches', which consist of small units appended to

and not integrated with larger monolingual units in the other language. An example is presented in Extract 1.3 where 'you know' is labeled a tag switch, one of the 'freely moveable constituents which may be inserted almost anywhere in the sentence without fear of violating any grammatical rule' (Poplack, 1980:589).

Extract 1.2 English-*Swahili*
That's too much. ***Sine peas***.
I don't have money
(Meryer-Scott 1993:41)

Extract 1.3 *Spanish*-English
Mi mai tuvo que ir a firmar y **shit** *pa' sacarme*, **you know***.*
My mom had to go sign 'n to get me out
(Poplack, 1980: 600)

In a more recent categorisation, Muysken (2000) provides a typological framework for code-mixing[1] by distinguishing three strategies. (1) *Insertion* which involves a dominant language body with an insert, usually a word or a phrase, from the other language, represented as an A-B-A structure. An example is shown in Extract 1.4. (2) *Alternation* refers to the use of the two languages separately in an A-B structure. The structure reflects Poplack's inter-sentential and intra-sentential CS, as illustrated in Extracts 1.1 and 1.2. (3) *Congruent lexicalization* occurs when two languages share a common grammatical structure and can therefore supply a lexical element from either language. An example is shown in Extract 1.5 in which 'where Jenny is' in English has the same structure as it has in Dutch.

Extract 1.4 Spanish-*English*
Yo anduve ***in a state of shock*** por dos días.
I walked for two days
"I walked in a state of shock for two days."
(Muysken, 2000:5)

Extract 1.5 Dutch-*English*
Weet jij [whaar] ***Jenny is***?

[1] Muysken (2000:4) adopts the term 'code-mixing' to refer to language alternations. He distinguishes 'code-mixing' from CS (code-switching) by its process of switching languages. He believes that code-mixing provides a broader concept which includes the alternations and the phenomena of borrowing and interference.

“Do you know where Jenny is?”
(Muysken, 2000:5)

1.1.1 Code-switching and Code-mixing

Are code-switching (CS) and code-mixing (CM) different? In general, they similarly refer to a discourse which includes at least two languages or dialects. CM emphasizes hybridization, whereas CS emphasizes the movement from one language to another. Either CM or CS probably occurs to some extent in all bilinguals’ or multilinguals’ utterances (McArthur, 1998). In language contact studies, there has not, however, been a clear consensus on the appropriate definitions of various results of language contact situations. Some scholars (e.g. Muysken, 2000) have chosen the term CM as a neutral cover term for both code-switching and borrowing. Singh (1985:34) reserves the term CM for intra-sentential switching and uses CS for situations where only one code is employed at a time, or cases where the code alternation refers to structurally identifiable stages or episodes of a speech event. In short, bearing in mind the various definitions in a range of studies, both CS and CM mean language alternation, whatever the types of alternation.

1.1.2 Code-switching and Borrowing

What is the relationship between CS and Borrowing? The studies back in the 1970s and 1980s treated the single lexicon of embedded language (EL) inserted in matrix language (ML) as borrowing until Pfaff (1979) and Poplack (1980) pointed out the difficulty of distinguishing them. Since then scholars are increasingly prone to considering a single-occurring EL lexicon as CS (Meyers-Scotton, 1992:28). Borrowing mainly occurs to fill lexical gaps and is integrated into ML. The most frequent borrowing is phonological integration (Meyers-Scotton, 1992:28). For example, the Japanese word ‘basubaru’ is created based on English ‘baseball’. This is a phonological integration from English and fills the cultural lexical gap in Japanese (Bullock and Toribio, 2009).

Bhatia and Ritchie (2009) summarize the different characteristics of borrowing and CS. First, the words used in borrowing ‘primarily serve in a linguistic function of filling in the lexicon gap of the [ML] and/or serve as a non-linguistic function, such as modernization. However CS is motivated by sociopsychological factors, such as social identity and differential language domains’ (Bhatia and Ritchie, 2009:595). Second, borrowed items are restricted in the EL, but this does not apply to CS, since bilinguals are free to choose lexical items from either language. Third, borrowed items are assimilated into the EL by normal phonological and morphological processes, but CS

is unassimilated in phonology or morphology. Fourth, borrowed items can appear in either a monolingual or a bilingual speech community; whereas CS can exist only in a bilingual community.

1.2 Approaches to studying code-switching

There are three kinds of approach to the study of CS, namely, linguistic approaches (or the 'structural approach' of Bullock & Toribio, 2009), psycholinguistic approaches and sociolinguistic approaches.

1.2.1 Linguistic approaches to CS

Bhatia and Ritchie (2009) reviewing the earlier research of the 1970s suggest that CS is either not subject to 'syntactic constraints' (Lance, 1975) or, equivalently, is subject only to an 'irregular mixture' (Labov, 1971: 457). CS was viewed as strange and random until Chomskyan linguists in the late 1970s and early 1980s sought to capture the grammatical constraints on CS. Since then, CS research has been occupied by unveiling its complex structures. This section presents the well-known CS models, including earlier models brought up by Poplack (1980) and a more recent one by Myers-Scotton (1993).

1.2.1.1 Poplack's linear order constraints

Poplack's study of English-Spanish bilinguals is one of the most influential. After examining a wide range of bilingual corpora, she proposed *The Free Morpheme Constraint* and *The Equivalence Constraint*. The free morpheme constraint is that 'a switch may not occur between a bound morpheme and a lexical form unless the latter has been phonologically integrated into the language of the bound morpheme' (Sankoff & Poplack, 1981: 5-6). This constraint shows that CS is rule-governed rather than random (Bhatia and Ritchie, 2009); it was more widely accepted in the 1980s than the equivalence constraint (Meyers-Scotton, 1993). However, it was later provided evidence that the free morpheme constraint cannot apply to all languages. Meyers-Scotton (1993) proposed that the violation to this constraint was limited to agglutinative languages (Extract 1.6), such as Swahili, but Bhatia and Ritchie (2009) further showed that non-agglutinative languages (Hindi, for instance, see Extract 1.7) also violate this constraint.

Extract 1.6 *Arabic*-English

ʔana	*ba*-**copa**	*maʔa*	*l-lahja*
I	pres-cope	with	the-dialect

“I cope with the dialect”
(Bhatia and Ritchie, 2009:599)

Extract 1.7 Hindi-English
Third class ***kaa Dibbaa****…*
of compartment
“A third-class compartment” (lit.: compartment of third class)
(Bhatia and Ritchie, 2009:593)

The equivalence constraint is ‘code-switches will tend to occur at points in discourse where the juxtaposition of L1 and L2 elements does not violate a syntactic rule of either language (i.e., at points around which the surface structures of the two languages map onto each other)’ (Poplack, 1980: 586). In other words, either of the languages can be replaced by the other so long as neither a grammatical structure nor the word order is changed. The example of Hindi-English CS in Extract 1.8 (a-c) illustrates the equivalence constraint in English and Hindi, which shares the common structure of a noun phrase where an adjective is positioned before a noun. In contrast, the equivalence constraint treats Extract 1.9 (b-c) as impermissible, due to the factor that Hindi lacks articles and therefore they violate the grammatical structure of Hindi.

Extract 1.8 *Hindi*-English
a. *vo buuRaa* aadmii
b. *vo* **old** *aadmii*
c. *vo* **old man**
(Bhatia and Ritchie, 2009:600)

Extract 1.9 *Hindi*-English
a. the old man
b. * the ***buuRaa*** man
c. * the ***buuRaa aadmii***
* refers to an incorrect structure.
(Bhatia and Ritchie, 2009:600)

Poplack, in fact, represents an early stage in the linguistic approach to CS. However the later literature points out the problems. The first is the universal problem that the constraints cannot be mapped cross-linguistically (for example, Bhatia and Ritchie, 2009; Seidlitz, 2003). The second is that, although the

equivalence constraint meets the requirement of grammatical category and word order, it cannot guarantee that the output will be well formed (Bhatia and Ritchie, 2009:600).

1.2.1.2 Meyers-Scotton's Matrix Language Frame Model (MLF)

Meyers-Scotton's (1993) MLF is one of the most influential theories in the past decade. This model is proposed by examining a Swahili/English corpus. Unlike Poplack's structure, MLF is a non-linear model. It also suggests several hypotheses to account for morphosyntactic patterns in CS. Meyers-Scotton begins by differentiating Matrix Language (ML) from Embedded Language (EL). This dichotomy is not new; in the past, ML was used to signify the host or base language and EL to signify the guest or donor language. The essential concept is that one of the languages, the ML, keeps its grammatical structure while the other language, the EL, is inserted into its framework. Meyers-Scotton also believes that morphemes can be accessed during CS and therefore distinguishes 'content morphemes' from 'system morphemes'. Content morphemes are similar to open-class items, for example, verbs, nouns, descriptive adjectives and so on, while system morphemes link up with closed items, e.g. flection, articles, quantifiers and so forth (Seidlitz, 2003). Meyers-Scotton states her morpheme order principle by specifying that all the system morphemes come from the ML; CS does not occur otherwise. In other words, when a system morpheme comes from the EL, the constituent must be completed by EL elements.

Meyers-Scotton's MLF has been revised and recent revisions were published by herself and Jake (2001) and by Jake, Meyers-Scotton and Gross (2002). The sequential research challenges MLF (for example, MacSwan, 2005a, 2005b), but this model still plays a role in the linguistic approach to CS.

1.2.2 Psycholinguistic approaches to CS

Psycholinguistic approaches aim to understand the cognitive mechanism whereby speakers acquire, perceive and produce CS. Depending on the way in which languages are stored in the brain, Weinreich (1953) identifies three types of bilinguals who code-switch: coordinate, compound and subordinate. Coordinate bilinguals have a separate parallel system, which separates the lexical notions together with the concepts in the lexicons for each language. For example, the lexicon 'laoshi' (teacher) in Mandarin maps the kind of teacher familiar in Chinese culture where teachers normally are very highly respected, knowledgeable and patient, but distant. The word 'teacher' in English, however, maps to a different image of teachers from the previous one. Compound bilinguals, in contrast, have the

same lexical concepts shared in their two languages. For instance, these bilinguals express the same notion by the English word 'teacher' and the Mandarin word 'laoshi' (teacher). Subordinate bilinguals have two languages, one dominating the other. In other words, the concept in the less dominant language gains by being compared to the concept in the dominant language.

Grosjean (1985) argues that CS should be viewed from the bi- or multilingual point of view rather than the monolingual, although it had been widely accepted that 'ideal' bilinguals should be as equivalently competent as two monolinguals. He devises a continuum of 'speech modes', ranging from completely monolingual to multilingual. At one end of the continuum, bilinguals behave like monolinguals when they speak to a monolingual who speaks one of the languages that they know. At the other end of the continuum, they code-switch when they speak to bilinguals with the same languages as theirs. Grosjean suggests that speakers should determine which mode they are in before any conclusion is reached about their language competence. He implies that bilinguals either speak monolingually or code-switch according to the language status of their interlocutors. Lance (1970) believes that bilinguals code-switch simply because one language pops out faster than the other. In a study of four English and Spanish bilingual children, he finds that the children used only English or Spanish when the situation excluded the other language. However, when they were in a situation which allowed them freely to choose the language, the one which was the closest to the tip of the tongue was used. Similarly, Aguirre (1985) states that code-switching does not mean that the bilinguals know only one language but merely that this language is 'available' to be uttered.

Such psycholinguistic research is often conducted in a laboratory setting, with controlled stimuli. For this reason, we should not be surprised if it disagrees with the results of ethnographic studies that observe language behaviour in a natural context.

1.2.3 Sociolinguistic approaches to CS

The sociolinguistic approach tends to enquire why speakers alternate in the use of languages. Compared to the linguistic and psycholinguistic approaches, the sociolinguistic approach is more complex, for it takes into account factors beyond the linguistic, such as 'age, class, gender, social networks, community norms, identity and attitudes' (Bullock & Toribio, 2009:16). Through this approach, CS is discussed at two levels: the micro-level and macro-level. The micro-level approach looks at the speaker's social motivation to code-switch. It examines 'CS in the service of discursive functions, identity construction and accommodation as well as CS as a reflection of the social networks in which the individual bilingual participates' (Bullock & Toribio,

2009:16). The micro approach contributes much to understanding bilinguals' behaviour towards CS. The macro-level approach, for its part, aims to find the role of language use across the entire language community. This helps to situate an individual speaker's linguistic behaviour within the diverse social contexts and according to the norms of the society.

1.3 Aims of the study

As a language teacher for many years, I am always interested in whatever promotes students' target language learning. I recall that in my teacher training period, we were advised that good language teachers should provide L2-only input and had better exclude the learners' L1. The reason for this was that a teacher is viewed as the only source of the target language in a classroom; students experience both it and the culture of those who speak it (Chambers, 1991). However, teaching experience leads me to doubt this advice: L1 seemed to be needed from time to time for classroom communication and students' cognition processes. Is there a gap between the policy and the teaching, in practice? Along the existing studies that investigate teachers' CS in the subtopics of a language's structures, its pragmatic functions and its relationship with classroom interactions, this study aims to evaluate the subtopics that distinguish between the utterances of NSs and of NNSs. It then compares the differences or similarities between them. In addition to teachers' utterances, students' discourse is also examined. The study asks how far teachers' language choices and students' language choices are relevant. In addition, it is interesting to note that all the NS and NNS teachers make frequent use of *OK* in their utterances. This study further investigates and compare the functions of *OK* in NS and NNS teachers' utterances. It also considers the relationship between *OK* and teachers' CS.

1.4 The research questions of the study

To get to understand the role of language alternation in an L2 classroom, this study tries to investigate it by answering the following six questions.

1.4.1 How much TTT and STT is there in NS and NNS teachers' classes?

This question regarding teacher talking time (TTT) and student talking time (STT) has been asked in a wide range of studies. Many researchers, through observations, noted in earlier studies that teachers still dominate the class talk (for example, Bellack et al, 1966; Dunkin and Biddle, 1974) and still in recent studies (Tian, 2013; Tien, 2013; Tayjasanant, 2013). A similar question in the present study is asked so as

to contribute to these findings by comparing the talking times for NS and NNS teachers and for their students. Do NS or NNS teachers talk more than their students? When NS and NNS teachers have different pedagogical focuses in their classes, do they talk more or less as a result?

1.4.2 What is the relationship between teachers' and students' language choices?

The only study, to my knowledge, which investigates the relationship between the teacher's language choice and the student's language choice by quantifying them was made by Macaro (2001). He concluded that there was no significant correlation because his data show no consistency between the teachers' predominantly L2 (also known as 'target language') input and the students' L2 output. This result was received from his participating student teachers, who generally as teachers provide a high proportion of L2 input. However a similar result is not found in students' output. This triggers my interest in examining the language choices made by NS teachers, NNS teachers' and their students. This study examines them not only in their overall interactions but also in adjacent interactions. It aims to see if a teacher's language choice can influence the students' language choice in adjacent interactions.

1.4.3 What are the linguistic structure of NS and NNS teachers' CS?

The linguistic structure of teachers' CS has not yet been widely discussed. The limited range of studies suggest various results, because teachers may favour one particular linguistic structure of CS in one study but another linguistic structure may be favoured by teachers in another study (for more details see Chapter 4). The present study aims to investigate the linguistic structures of teachers' CS and compare those of NS teachers with those of NNS teachers.

1.4.4 What pragmatic roles do CS play in NS and NNS teachers' utterances?

This topic has already attracted a large volume of work, indicating as a rule that CS is used to reach certain teaching or learning targets. Therefore a CS normally performs a function. Unfortunately, although many studies discuss it, they do not seem to adopt a systematic method of categorization. They either use pre-defined categories which were generated from earlier research or do not explain how to reduce any possible subjectivity caused in categorisation when only one person, normally the author, works on the task. In order to understand the function of every single CS appearing in this study and avoid any consequent subjectivity, a different method is applied. The methodology is presented in a later section (section 3.3.5 of Chapter 3). It follows that the similarities and differences of functions of CS between NS teachers

and NNS teachers' utterances should be compared.

1.4.5 What roles do CS play in the teacher-student interactions?

After understanding the functions of CS in teachers' utterance, this study looks next at its role in teacher-student interaction. Classroom interactions aim to help the teachers and students reach their teaching and learning targets. Language in classroom interactions acts as a medium that conveys messages between teachers and students. The language in a language classroom is more complex than in other classes, e.g. history or geography, because the language in a language classroom is not only a vehicle for communication but also a teaching/learning objective. All answers to this question must focus on the way in which CS is used in the various teaching activities with their different pedagogical focuses. It also investigates how CS can assist with the teacher-student interactions or in other ways.

1.4.6 What are the roles of *OK* in NS and NNS teachers' utterances?

OK as the most frequent code-switch in this study is found in Native-speaking (NS) teachers and Non-native speaking (NNS) teachers' utterances in this study. They switched from Mandarin, as learners' L1, to *OK*, as learners' L2, and vice versa. Adding to the literature agreeing *OK* is used frequently (Fung and Carter, 2007; Levin and Gray, 1983; Liao, 2009 Shahbaz et al., 2013) and owns unique roles in classrooms where English is the monolingual channel (Sinclair & Coulthard, 1975; Levin & Gray, 1983; Cater & McCarthy, 2006; Schleef, 2005, 2008; Fung & Carter, 2007; Liao, 2009; Shahbaz et al., 2013), this study aims to investigate *OK* as a code-switch in respect of frequency, function and its frequent combination in this study with Mandarin terms (e.g. *OK hao*).

In addition to the role of *OK* as teachers' switch, this study tries to see its role in teachers' English utterances. It tries to examine *OK*'s frequency, functions and combinations in English (e.g. *OK alright*) and compare the result with the previous studies.

1.5 Definition of the terminology

CS (Code-switching) in this study refers to all language alternations apart from borrowing, which is discussed in 1.1.2 above. For example, in Extract 1.10, Teacher C opens her session with the topic 'MP three'. She utters 'MP three' three times in the extract below. As 'MP three' is a widely used term in Taiwan, it is viewed as a borrowing from English. In this case, MP three is not counted as L2 (English) and therefore no CS takes place in Teacher C's utterance in Extract 1.10.

Extract 1.10

1. T: …, *women lai kan yi xia* **MP three**. *Lai, zhe yi ke, dakai di sishi ye*.
   we come look at Come this lesson open the forty page
2. *Lai, daka di sishi ye,* **MP three***…shishishang* **MP three** *yijing youdian*
   Come open the forty page in fact already a little
3. *zemeyang*?
   what

"…, let's look at MP three. Come and look at this lesson and look at page forty. Come and look at page forty, MP three…in fact MP three is already a little what?" (NS_C_2-3)

L1 (first language) in this study refers to students' first language, which can be both Mandarin, the official language in Taiwan and Southern Min, a dialect in Taiwan. Mandarin is the official and national language in Taiwan. Lee and Li (2013: 820-821) mention that this is due to the National Language Movement, a language policy practised by the new regime in 1946, under which Mandarin over three decades was successfully promoted but at the cost of language varieties in the local community. Today, nearly 90% of Taiwanese population can speak Mandarin (Huang, 2000). Mandarin in Taiwan is viewed as 'Taiwanese Mandarin' which includes influences from other local dialects at all linguistic levels. This makes it distinct from the Mandarin used in Mainland China. Southern Min is the second most widely used language variety in Taiwan. Code-switching between Mandarin and Southern Min is very common. The matrix language is either Mandarin or Southern Min, depending on the speaker (Lee & Li, 2013:820). Although both Mandarin and Southern Min are treated in this study as L1, Mandarin is used as the major language in any extract from an L1's utterance.

L2 (second language or foreign language) refers to the learners' L2, English in this case. English in an L2 classroom is not only a foreign language but also, in a Taiwanese EFL classroom, the target language. It is obviously the most important foreign language in Taiwan (Chen & Hsieh, 2011). Some primary schools start EFL (English as Foreign Language) tuition from Grade 4 (students at the approximate age of 10), or even earlier, in Grade 2 (students at the approximate age of 8) (Lee & Li, 2013:822). The great demand for English learning is reflected in the large volume of English teaching or self-learning materials or related publications and of English cramming schools in the corners of every city in Taiwan.

NS (native-speaking) teacher refers to a teacher who is a native speaker of the target language in a classroom. The NS teachers in the present study, based on the

NEST (native English-speaking teacher) programme of the MOE (Ministry of Education, Taiwan) announced in 2003, are native English speakers who have a BA degree and have received a teaching qualification in their home country. The role is to work with Taiwanese teachers of English from the educational and cultural perspectives of English teaching and learning. One of their main duties is to promote conversational English among the students (Luo, 2010).

NNS (non-native-speaking) teacher refers to a teacher in a classroom who is a non-native speaker of the target language. In the present study, NNS teachers who share the same L1 (Mandarin) with the students are non-native English speakers although their comprehension of English is advanced.

1.6 Overview of this dissertation

This chapter, Chapter 1, provides a basis for the present study. It first clarifies the definition of CS (Code-switching) and presents various types and definitions of CS. It also discusses the linguistic, psycholinguistic and sociolinguistic approaches to CS analysis. The research questions are described and the targets that this study wishes are analysed, together with the contribution that this study wishes to make.

Chapter 2 treats the literature in relation to CS in classrooms in its chronological order. It starts from the earlier literature exposing the learners' L1 need to have it banned in L2 classrooms and moves to the more recent research providing evidence that learners' L1 can actually assist with classroom communication and their L2 learning if a teacher uses it strategically. This chapter also presents the most commonly used approaches to classroom discourse analysis: DA (Discourse Analysis) and CA (Conversation Analysis). Bearing in mind their different advantages and limitations, CS-related studies select either or both for different aims.

Chapter 3 describes the methodology for attaining the aims of this study. It shows the quantitative results illustrating the amount of L1 and of L2 in NS and NNS teachers' utterances and in their learners' utterances. It also tries to find whether teachers' language alternation affects the language alternation in their learners and vice versa.

Chapter 4 analyzes the linguistic structures and the pragmatic functions of teachers' CS in NS and NNS teachers' classrooms. It also discusses which linguistic structures and pragmatic functions are favoured by NS teachers and NNS teachers.

Chapter 5 investigates the roles of CS in different pedagogical contexts of classroom interactions. It also looks closely at the way in which NS and NNS teachers' CS functions in teacher-student interactions.

Chapter 6 examines the roles of *OK* which is the most frequent CS in this study. It also compares the volume and functions of *OK* in the contexts of bilingual

(Mandarin and English) or monolingual (English) uttered by NS teachers and by NNS teachers.

Finally, Chapter 7 summarises the answers to each of the research questions. It also outlines the limitations of this study and makes suggestions of topics for future studies.

Chapter 2 Code-switching in Classrooms: Theories and Empirical Studies

2.0 Preliminaries

The role of the learner's L1 (first language) in an L2 (second or foreign language) classroom has been widely discussed and still remains debatable. A range of teaching approaches and learning theories argues that the L2 (as known as the target language 'TL',) should act as the only medium of communication in class. Given this expectation, teachers need to take responsibility for using L2 exclusively or maximally. L1 in L2 classrooms is therefore banned in some countries. However, attention recently has shifted to the value of L1 in this situation. Some research suggests that L1 helps classroom communication and classroom management. It may even promote the effect of learners' L2 learning. These studies argue that L1 use in classroom should not be under-valued.

Lin (2013) summarizes the chronological trends of CS studies in L2 classrooms. The earliest theories and studies promoted the exclusive use of L2. Empirical studies then started to investigate the linguistic features and functions of CS in the classroom. They further revealed the value of students' L1 in language lessons. More recent studies have tried to evaluate the social relationship between classroom CS and symbolic domains. In addition to the sociolinguistic perspective of CS in classrooms, Lin (2013), in her review of the literature in the past three decades, mentions that recent studies have focused on examining how far L1 use promotes the effect of L2 learning and have moved on to a new stage of CS-related research.

Following the chronological development of CS discussions, this chapter first reviews the theories which would ban the use of L1 in L2 classrooms. A range of research follows, with evidence to challenge the earlier belief. The chapter then presents the commonly used approaches to classroom discourse analysis at present and ends by summarising the rest of the chapter and the current problems in research on this subject.

2.1 The virtual position of L2 in classrooms

The perspectives on L1 and L2 use in the classroom form a continuum. One of the extremes virtually recommends that L2 alone should be used (Macaro, 2005). In past decades, it was believed that some theories and pedagogies (for instance Krashen's Input Hypothesis 'i+1', the Audiolingual Method, Direct Method, Natural Approach, Immersion) and some researchers (for example, Chambers, 1991; Halliwell & Jones, 1991; MacDonald, 1993) have discouraged L1 in an L2 classroom. These teaching methods and teaching approaches which accommodate L2-only or L2-maximum

were, to a greater or lesser degree, influenced by Chomsky's theory of innate language acquisition, which holds that comprehensible language input triggers language acquisition (Liu et al., 2004). It is also believed that L2 learning should be the same as the L1 learning that involves L1 only in the learning process. This belief was more or less accepted at the time and therefore the related research and articles blamed L2 teachers if they did not use the L2 exclusively or almost exclusively in class. In this situation, some national educational agencies adopted the monolingual approach and tended to control bilingual teachers' L1 utterances. This has impacted on national educational policies in North America, Europe and Asia. For example, the Atlantic Provinces Education Foundation (1997) stated that it is essential for French (as the L2) to be the only language used in classroom communication. The Ontario Ministry of Education in 1998 also banned English (as the L1) in French (as the L2) classrooms and claimed that French must be the only language in classroom communication. In another instance, the 'National Curriculum for Modern Foreign Languages (England and Wales)' recommended that L2 should act as the 'medium in which classwork is conducted and managed' (Department of Education and Science, 1988: 12); similarly, the South Korean Ministry of Education requested English teachers to maximize their use of English (Liu et al., 2004).

Following the attention of the L2-only lobby, the use of L2 in classrooms by teachers has been viewed as an important issue, since it could be a rare or even unique opportunity for learners to experience L2, in particular when it is a foreign language to the learners. Teachers, in this case, are expected to play the main role in the classroom setting and to produce comprehensive input – that is, 'the natural unconstrained use of the target language in the classroom' (Higgs, 1982:8). In this regard, Chambers says that 'in the language classroom, the teacher is the only source of spoken foreign language which the pupils experience live, with the paralinguistic support which is non-existent on recorded audio tapes' (Chambers, 1991:28). Similarly, Chaudron (1988) writes:

> … in the typical foreign language classroom, the common belief is that the fullest competence in the TL is achieved by means of the teacher providing a rich TL environment ...
> (Chaudron, 1988:121).

In this regard, Polio and Duff (1994) criticize FL teachers who do not provide a comprehensive input of the TL:

> … the examples of a teacher switching to [the learners' language] at signs

> of comprehension failure suggest that teachers may lack the necessary experience or strategies to rephrase and otherwise modify their speech. (Polio & Duff, 1994:323)

Teachers of L2 classes are expected to take responsibility for offering comprehensive input. The following section gives details of some of the anti-L1 teaching methods and approaches that define the expected linguistic role of the teachers.

2.1.1 Anti-L1 teaching methods and approaches

The teachers' comprehensive L2 (as known as TL) input is emphasized in some teaching methods or approaches. In the late nineteenth century, the Grammar-Translation Method, which focused on the grammar of L2 and its translation into L1, was succeeded by the Direct Method, diverting attention to the L2 and its monolingual use in class. Richards and Rodgers (2001) illustrate the way in which a German scholar, Franke (1884), directly associated forms and meanings in L2 with psychological principles; he stated that the L2 should be used actively to learners. Hence, teachers, instead of explaining grammatical rules, must be encouraged to use L2 directly and spontaneously. In practice, Richard and Rodgers realised that the main principle of the Direct Method should be that 'classroom instruction was (is) conducted exclusively in the target language' (Richard & Rodgers, 2001:12).

The Audiolingual Method appeared when the USA decided to enter World War II, which required a large force of interpreters, code-room assistants and translators (Richards & Rodgers, 2001). The American government consequently needed people who were fluent in foreign languages, for example, German, Japanese, French, and Chinese. The Audiolingual Method was supported by American linguists and behaviourists, who believed that foreign language learning required much practice and reinforcement, in order to internalize linguistic features as language habits. Participants in the US programme had very intensive training from native speakers. At the same time, language learning began to focus on error-free production, repetition, mechanical drills, oral practice and an explicit knowledge of grammar rules. The classes, which were exclusively conducted in L2, strictly forbade students' L1.

The Natural Approach was first developed by Terrell (1977); it gives some weight to teachers' comprehensive L2 input. Based on his experience of teaching Spanish, Terrell stated that L2 students were expected to achieve communicative competence, defined as a level where 'a student can understand the essential points

of what a native speaker says to him in a real communicative situation and can respond in such a way that the native speaker interprets the response with little or no effort and without errors that are so distracting that they interfere drastically with communication.' (Terrell, 1977:326) For this reason, teachers should shift their attention from the morphological or syntactical level of the L2 to the content of the communication itself. Terrell says, in regard to listening comprehension, that 'the student should be told at the very beginning that he will hear a lot of L2 which he will not understand and that this is both natural and necessary' (Terrell, 1977:332). In short, Terrell sees 'monolingual TL' as natural and necessary in a L2 classroom.

Stephen Krashen's 'Monitor Hypothesis' also reflects the importance of the full L2 input in classroom. He believes 'learning', language knowledge, consciously received in a less natural context, e.g. a classroom, is more limited than 'acquiring' a language, when a learner unconsciously absorbs the language rules through using the language for communication. Following this line, he says that 'real acquisition comes only from comprehensive input' (Krashen,1982:28). Therefore comprehensive L2 input is important for teachers and their students.

2.1.2 L2-only classrooms: French immersion in Canada

Among the few empirical studies to support the L2's virtual monopoly of classroom time, the French immersion programme in Canada is cited by some scholars as the most successful programme ever (Krashen, 1984; Obadia, 1996). The main principle of this programme was to use L2 exclusively in a classroom. As reviewed by McMillan and Turnbull (2009), the French immersion programme was established in 1965. It was developed for the non-native speakers of French throughout Canadian provinces and territories. Over 300,000 students have enrolled on it, representing approximately 11% of the entire population of students in the country. It was intended as a way to promote individual bilingualism in Canada where there are two official languages. The immersion curriculum involves all the expected school subjects that parallel those in the regular first language curriculum. Because this programme developed many successful bilinguals, it has been praised as an example of 'best' practice and it excludes the learners' L1. In this situation, the discussions regarding CS and its possible help in classroom communication and students' learning efficiency seem to be ignored.

Although the policy bans L1 in classes, some research that examines the Canadian students' immersion in French indicates that some L1 in fact makes its way into the discourse in these classes. Behan et al. (1997:41) studied Grade 7 late French immersion students and concluded that L1 use not only supports and enhances L2 development but also is an effective tool for managing the students' cognitive load of

L2. Swain and Lapkin (2000) reported that Grade 8 early French immersion students completed a collaborative task more successfully by employing L1. They concluded 'Judicious use of L1 can indeed support L2 learning and use' (Swain & Lapkin, 2000: 269). It is interesting to discover that the so-called 'most successful' immersion programme needs the assistance of an L1. What are the language choices in other places in the world? What is the role of L1 in their L2 classrooms? The following section reviews the literature that describes what L1 brings to teachers, students and their classes.

2.2 The use of L1 aids in L2 classroom communication and L2 learning

While the exclusion of L1 from the L2 classroom has been discussed, the opposite view can be heard from some researchers and scholars. Vivian Cook, for example, remarks 'it is time to open a door that has been firmly shut in language teaching for over 100 years, namely the systematic use of the first language (L1) in the classroom' (Cook, 2001:403). Cook supports his arguments by two considerations. First, none of the statements derived from L1 learning, the compartmentalization of languages and the provision of L2 use countermands the use of L1; second, there are teaching methods which integrate L1, where CS is seen as a natural and effective way to help with L2 learning. Cook suggests that L1 should not make teachers feel guilty, but should rather be used deliberately and systematically in class.

Macaro (2005) proposes that a systematic use of CS in L2 classrooms could facilitate classroom interaction and further improve L2 learning. His previous studies (Macaro, 2001; Macaro & Mutton, 2002) illustrate that even teachers' saturation with L2 does not necessarily bring about more students' utterances in L2. He finds no significant increase of learners' L2 in whole group interaction when teachers' CS is controlled to below 10% of their talk. Learners' L1, in his view, should not be treated as something forbidden but instead can be used in the strategic repair of utterances in group interaction. This result is supported by later research (for example, Scott & de la Fuente, 2008). In regard to learning efficiency, Macaro says,

> If we can consider classroom discourse as text to be decoded and understood, we can perceive how the teacher's code-switching can help counter the cognitive constraints imposed by working memory limitations. A code-switch can reduce the selective attention dedicated to a single communication breakdown, freeing up working memory capacity to work on the meaning of larger chunks of input whilst at the same time offering the hearer the opportunity of quick storage of an L1-L2 equivalent they were previously not aware of.

(Macaro, 2001:74-75)

Macaro (2009) further proposes the 'optimal use' of L1 in L2 classroom. He sees optimal use as a practice 'where code-switching in broadly communicative classrooms can enhance second language acquisition and/or proficiency better than second language exclusivity' (Macaro, 2009:38). In other words, CS by a teacher involves the judgement to use L1 for the more effective learning of L2, not out of laziness or the desire to make lives easier in the classroom. Turnbull and Arnett (2002) review the theoretical and empirical literature concerning teachers' use of L1 and L2 in L2 classrooms. They report that numerous empirical studies have investigated how much and in what contexts teachers use L1 and L2. Some of the research even suggests revising the negative perspective on L1 because L1 can benefit L2 learning (Guthrie, 1984; Skinner 1985; Dickson 1992; Macaro 2005; Liu 2003; Liu et al., 2004; Greggio & Gil 2007, Scott & de la Fuente 2008). Lin (2013) in a more recent review presents various stages in the development of CS. The discussions extend from the earlier stage: (amount of L1 use and functions of L1) to a more recent stage: the strategic use of L1 and the effect brought by L1 to L2 learning. The following shows the various focuses on CS in L2 classrooms in the literature.

2.2.1 The amount of L1 use in L2 classrooms

A range of studies shows that L1 does appear in L2 classrooms, although the amount of L1 use in teachers' talk varies. Wing (1987) reports 54% of L1 being used in Spanish classes. In the study of Duff and Polio (1990) conducted in thirteen language classrooms at the University of California, Los Angeles (UCLA), it was found that the mean and median use of L2 by teachers was 67.9% and 79% respectively. At the same time, the researchers were surprised at the variability in terms of the amount of L1 in teacher talk, which ranged from 0 to 90 percent. Liu et al. (2004) looked at the amount of English as a foreign language that was used by non-native English teachers in South Korean high schools, finding an average 40% of L1 in teachers' talk in classrooms. The amount of L1 use also varied from 10% to 90% in the thirteen observed classrooms. A more recent study echoes this result; there the teachers' L1 use ranged from 6.8% to 75.6% (Inbar-Lourie, 2010).

Some studies indicate consistent and even greater amounts of L2 spoken by the teachers. Macaro (2001) found that very little L1 was used in the classrooms taught by his six selected student teachers, since they are aware of comprehensive L2 input; a 4.8% (mean) use of L1 appeared in lesson time and a 6.9% (mean) use of L1 was involved in classroom talk. Another study conducted by Rolin-Ianziti and

Brownlie (2002) found that each of the four French teachers (two native speakers and another two non-native speakers) used an 8.8% (mean) of L1. A relatively recent study was conducted by de la Campa and Nassaji (2009) in two German-as-a-foreign-language classrooms of an Anglophone university in western Canada. The classes were in conversational German and were taught by two native German speakers. Through word counting, the researchers found the overall use of L2 to be 88.7% and of L1 to be 11.3%. No significant difference, in terms of the amount of L2 and L1, was found between the two NS teachers in their speech.

The quantity of L1 use not only varies from one teacher's class to that of another but also varies in classes taught by the same teacher. Edstrom (2006) in her self-reporting study also illustrates that she estimated the learners' L1 to vary from 6% to 71% in the same Spanish classroom, which she had observed continuously over a full semester. The variety may be attributed to various non-linguistic factors, such as teaching activities, the curriculum and the particular objectives of the sessions, for example, a listening exam and an oral exam.

It is noted from the above studies, then, that the amounts of L1 use by teachers can vary. However, how much L1 should a teacher strategically use in order to assist with the learners' L2 learning? Macaro (2005) began to turn up evidence and suggests that deploying 10%-15% of L1 use does not impact on the learners' L2 production. He further mentions that 'it is a transaction which determines the intent of the bilingual teacher in his/her discourse. Thus if the transaction intension is to communicate via L2, CS will not push the amount of L1 use above the threshold level' (Macaro, 2005:72). The function of CS here is a strategic tool that repairs communicative breakdowns in L2. However, Macaro suggested that, beyond this threshold, the nature of CS changes (Macaro, 2005:82). Although Macaro brings up a threshold level of L1 use for L2 classroom, he also suggests future studies in which to examine this further.

2.2.2 Linguistic features of CS in classrooms

Some have shown an interest in the linguistic features of CS in classrooms, but research on this is limited. Duff and Polio (1990) use five simple general categories to classify the linguistic structures of their 13 participating teachers' utterances. The categories comprise 'L1', 'L1c', 'TL', 'TLc' and 'Mix'. 'L1' signifies that the utterance consists entirely of English as the L1, while 'L1c' means that it mainly consists of L1 with some words or phrases in the TL. Similarly, 'TL' means that the utterance entirely involves the TL while 'TLc' indicates that the utterance mainly consists of TL with some words or phrases in L1, English. 'Mix' refers to utterances with an approximately equal mixture of TL and L1 or to those to which 'L1c' or 'TLc' cannot

be applied. First putting teachers' utterances into these categories, Duff and Polio went on to quantify each category in percentages. The result shows that the quantity of each item varied from class to class. Kim and Elder (2005) adopted Duff and Polio's five categories to investigate the relationship between teachers' language choices and their pedagogic functions. In line with Duff and Polio's result, Kim and Elder found that the quantity in the categories varied between classrooms.

Unlike Duff and Polio's categories of CS, which focus on the quantity of utterances in each language, Liu (2003) looks at the relationship between CS and the boundaries of sentences. She collected 153 instances of CS from 9 hours of audio- and video-recordings in 6 EFL tutorial classrooms in Beijing and found that 80.4% CS are inter-sentential, whilst 19.6% CS were intra-sentential. In addition, among the inter-sentential instances of CS, 82.9% were switches from English to Chinese whereas 17.1% of the instances switched from Chinese to English. However, within the instances of intra-sentential CS, no significant difference was found either in switching from Chinese to English or English to Chinese. Therefore Liu concludes that the dominant linguistic feature in the 4 participating teachers' utterances is inter-sentential CS from English to Chinese.

The study by Iqbal (2011) finds a different result from Liu's (2003); it was conducted at six universities in Lahore city, Pakistan and audio-recorded 14 lecturers' classes. 2646 instances of CS were collected for analysis. Among the frequent CS between English and Urdu by teachers, a much higher rate of intra-sentential CS by teachers (37.15%) was found than of inter-sentential CS (3.66%).

The above studies show the limited discussions of the linguistic features of CS in L2 classrooms. In addition, the linguistic features are categorized in a number of ways in these limited studies and therefore it is difficult to compare their results to derive further implications for L2 teaching and learning.

2.2.3 The functions of L1 as deployed in L2 classrooms

There is a high volume of studies that investigate the functions of L1 in L2 classrooms. To present the functions of CS, the following are discussed in turn in the next five subsections: (1) clarification, (2) classroom communication, (3) classroom management, (4) interpersonal function and (5) covering teachers' incompetence.

2.2.3.1 CS for clarification

That L1 is used for clarification was found in many empirical studies. It is invoked to clarify the meaning of words, phrases or text by translating (Copland & Neokleous, 2010; de la Campa & Nassaji, 2009; Edstrom, 2006; Forman, 2012; Greggio & Gil,

2007; Guthrie, 1984; Liu, 2003; Liu et al., 2004; Rezvani & Rasekh, 2011; Rolin-Ianziti & Brownlie, 2002, Rui & Chew, 2013; Sali, 2014), to explain the grammar structure (Crawford, 2004; Edstrom, 2006; Greggio & Gil, 2007; Kim & Elder, 2008; Liu et al., 2004; Polio & Duff, 1994) or to give (cultural) background information on a text (Crawford, 2004; Kim & Elder, 2008; Forman, 2012; Liu et al., 2004, Sali, 2014). Most of the teachers in the study of Liu et al. (2004) expressed a preference for giving background information in a switch to L1 in order to help students understand the whole lesson better. It has often been debated whether 'translation' should figure in teachers' talk. Translation, in the advocators' view, gives the corresponding word or phrase in L1 efficiently and this, at the same time, helps reduce learners' cognitive overload (Bruen & Kelly, 2014; Macaro, 2005; Scott & de la Fuente, 2008). But it could be considered inappropriate if teachers translate because of laziness (Edstrom, 2006) or simply to save time (Liu, 2003; Liu et al., 2004; Rezvani & Rasekh, 2011) in view of their other teaching activities, because 'meaning negotiation' should be part of communication in the L2 classroom' (Polio & Duff, 1994). In this case, translation as a tool is expected to be used when 'necessary'. The concept of what this word 'necessary' entails would require more discussion to reach a consensus.

'Grammar instruction', among the various teaching activities, needs in particular a switch to L1. Some teachers claim that students receive a clearer concept of the grammatical structure if it is explained in the L1 than in the L2 (Polio & Duff, 1994); some teachers say that the L1 instruction compensates for the learners' insufficient comprehension (Edstrom, 2006); some teachers state that the L1 is more effective for teaching grammar (Crawford, 2004). In addition, students feel more comfortable when the teacher explains grammar in L1 instead of L2 (Liu et al., 2004) although the effect on students' learning does not suggest the same. Viakinnou-Brinson (2006) provided evidence that grammar teaching in L1/L2 does not result in a better score in either an immediate test or a posttest, when compared to the scores after L2-only grammar instruction. The result even shows that in the posttests students who had L2-only grammar instructions outperformed those who had L1/L2 grammar instructions. More details of this study are presented in section 2.2.6 of this chapter.

2.2.3.2 CS for classroom communication

L1 is also used for facilitating classroom communication (Guthrie, 1984; Liu et al., 2004; Moore, 2002; Rezvani & Rasekh, 2011; Rui & Chew, 2013; Saito, 2014; Sali, 2014; Samar & Moradkhani, 2014) and repairing communication breakdowns (Macaro, 2001; Saito, 2014). In a Californian elementary school containing Chinese learners of English, Guthrie (1984) compared a bilingual and a monolingual teacher's

classes. He concludes that the bilingual teacher's Chinese utterance had five communicative functions: translation, 'we code', procedures and directions, clarification and checking for understanding. Guthrie also claims that the monolingual teacher cannot act as effectively as the bilingual teacher can when the monolingual teacher is not familiar with Chinese language patterns. Similarly, several studies provide evidence that the confirmation checks, comprehension checks and clarification requests in L1 help with the flow of communication between teachers and their students (Liu et al., 2004; Moore; 2002; Samar & Moradkhani, 2014).

2.2.3.3 CS for classroom management

Language teachers switch to L1 for classroom management (Greggio & Gil, 2007; Kim & Elder, 2008; Liu et al., 2004; Rezvani & Rasekh, 2011; Rui & Chew, 2013; Sali, 2014). Greggio & Gil (2007) note in their study that the participating EFL teacher in a Brazilian university used Portuguese as the L1 to mark the beginning of the class and then switched to English as the L2. She also used L1 to get the students' attention mainly when she failed to do so in the L2. By getting the learners' attention, the teacher successfully maintained the planned structure of the class. Switching to students' L1 can also afford a short break time for the students before they go further into the L2 utterances.

L1 is also used to manage students' misbehaviour. For example, Liu et al. (2004) illustrate that, when a teacher tried to stop a group competition activity, she was unsuccessful until she switched to L1. Kim and Elder (2008) echo the finding that teachers' switching to L1 is an efficient way to stop student from misbehaving.

2.2.3.4 CS for interpersonal functions

The interpersonal function of the L1 is noted in many studies (for example, Flyman-Mattsson & Burenhault, 1999; Liu, 2003; Liu et al., 2004; Nikula, 2007; Rolin-Ianziti & Varshney, 2008; Saito, 2014; Sali, 2014). Learners' emotions influence their learning. Krashen (1982) sees learners' feelings as an 'affective filter', consisting of 'Motivation', 'Self-confidence and Anxiety'. His learning theory – the 'Affective Filter Hypothesis' – states that a lower affective filter is desirable for acquirers, since affective filters impede and block necessary input. In other words, according to Krashen, the ideal affective attitude refers to high motivation, high self-confidence and low anxiety. Following this theory, empirical studies emerged to discuss learners' feelings towards teachers' language alternatives in the classroom and the results show that L1 can play a positive role, in terms of learners' emotional attitudes.

Students express their preference for including their L1 in the L2 classroom

(Rolin-Ianziti & Varshney, 2008). They feel that the L1 acts to mitigate learners' negative feelings in class, such as frustration, fear, pressure, confusion and intimidation. Therefore, L1 helps learners to build up a better relationship with their teachers and they feel safe and confident enough to answer and pose questions. Apart from consoling negative feelings, it was found that the teachers switch to L1 to show their sympathy and understanding of the students' problems (Flyman-Mattsson & Burenhault, 1999) and L1 is also used to give praise or encouragement to the students (Rezvani & Rasekh, 2011). Moreover, the teachers make jokes and humorous comments in L1 (Liu, 2003; Liu et al., 2004).

2.2.3.5 CS to compensate for teachers' incompetence

In the earlier research, teachers' CS was viewed as a negative impact instead of a strategic tool for student's L2 learning. Therefore teachers were blamed for code-switching and their capability was even doubted. Polio and Duff (1994) say:

> …the examples of a teacher switching to English (as L1) at signs of comprehension failure suggest that teachers may lack the necessary experience or strategies to rephrase and otherwise modify their speech. As with the other uses of English … this reduces the amount of input presented to learners and, furthermore, offers little incentive for students to initiate meaningful interaction in the TL themselves, since that behaviour is not being modeled for them by their teachers. Not only would it be easy to point this out to the teacher, but it would also be easy to teach students how to ask for help in the TL with a set of common expressions.
> (Polio & Duff, 1994:323)

In addition to teachers' incompetence in teaching experience and strategy, Liu (2003) states that the teachers' incompetence and insecurity in the L2 make them switch to their L1 when it is the same as the students'. She maintains that the participating teachers are native speakers of Chinese who are not true bilinguals but 'monolingual individuals who have skills and knowledge in the target language. It is possible that they are sometimes unable to recall the required target language word at the moment of uttering.' (Liu, 2003:12). Harbord (1993) also argues that teachers who do not comprehend the L2 deprive students of the chance to communicate in it. In this case, teachers must be prepared better so that they can use the L2 in class.

To sum up, the above presents the functions of CS in an L2 classroom discussed in a range of empirical studies. Lin (2013) summarizes that, with a functional linguistic view (Halliday, 1994), these functions of CS provide a communicative

resource to assist the teachers and the students to reach the following aims:

1. Ideational functions: L1 is provided to those students who have basic L2 proficiency. Teachers switch to L1 to translate or annotate, explain, elaborate of exemplify L2 academic content (e.g. switching to describing in L1 a student's non-academic experience in order to make students understand the academic content in L2).
2. Textual functions: the L1 works to highlight or signal topic shifts, marking out transitions between different types of activity or a different focus.
3. Interpersonal functions: switching to L1 for role-relationships and identities, changes in social distance or closeness and appealing to shared cultural values or institutional norms.

(Lin, 2013:202)

2.2.4 Monolingual or bilingual teachers? Native or non-native teachers?

'Monolingual' generally refers to a speaker who speaks only one language while 'bilingual' refers to a speaker who fluently speaks two languages. Guthrie (1984) compared the monolingual teachers who speak L2 only and the bilingual teachers who share the L1 of the students. He concludes that the bilingual teachers have an advantage in classroom communication, because they are familiar with the linguistic patterns of the learners' first language. Liu (2003) asserts that 'bilingual' should be defined carefully because she finds the non-native EFL teachers in her observed classroom in China were not 'true bilinguals' who could freely shift between English and Mandarin. She believes they switched from English to Mandarin in class because of their linguistic incompetence.

Studies also compare native speaking (NS) and non-native speaking (NNS) teachers, in particular, the 'overwhelming majority of teachers worldwide [who are] non-natives' (Arva & Medgyes, 2000). NS teachers and NNS teachers are not compared in order to judge which are better and which worse. They are viewed as 'different', possessing different advantages and disadvantages. The range of comparisons is wide. If we focus on their linguistic background, NS teachers have more advantages because they are more competent to use the target language and confident in doing so (Arva & Medgyes, 2000; Walkinshaw & Oanh; 2014). Students prefer to treat NS teachers as a model of authentic and natural pronunciation (Walkinshaw & Oanh; 2014:7). At the same time, students were aware of experience a cultural or communication gap because of the NS teachers' lack of local cultural knowledge and L1 competence. NNS teachers sharing the same cultural background with the students have fewer problems over cultural matters and communication. NNS teachers' L2 learning experience also helps with students' L2 learning. In

addition, NNS teachers have a better knowledge of grammar (Arva & Medgyes, 2000:361) and this makes the students appreciate them in their L2 learning. The difference in the knowledge of grammar found between NS and NNS teachers is held up as a major cause of work distribution in Arva and Medgyes' study (2000). NS teachers are commissioned to teach English with a conversation-only focus while NNS teachers deal with anything else including grammar instructions.

Noting the differences between NS and NNS teachers, I wondered how far this difference impacted on their distribution of L1/L2. Since NS teachers are more competent in L2, do they use more L2 than NNS teachers? The limited studies show that NS teachers do not guarantee a more generous amount of L2 practice in L2 classrooms. Polio and Duff (1994) in their thirteen foreign language classrooms find all the participating NS teachers include a range of L1 use from 0% to 90.5%. Macaro (2001) reports that his six NNS student teachers use between 62% and 86% of L2. A recent study presents a direct comparison between NS and NNS teachers (Hobbs et al., 2010). In the context of lessons in Japanese, it examines 2 Japanese NS teachers and 1 British NNS teacher who shared the native language of the students. The result shows the NNS teacher produced much more of L2 than the NS teachers. The authors attributed it to the fact that the native Japanese teachers believed the students did not understand the instructions in L2 and therefore they '[had to]' switch to the students' L1. In contrast, the teaching and learning experience of the NNS teacher led him to believe that the students could catch up. Hobbs et al. (2010) conclude that the 'teacher's belief' is a key to her/his decisions about the language to use in class.

2.2.5 How do teachers and learners view CS?

More studies concentrate on examining how teachers perceive language alternations when it becomes clear that their perceptions are key to their decisions about the choice of language for the classrooms. Many researchers (e.g. Crawford, 2004; de la Campa & Nassaji, 2009; Hobbs et al., 2010; Inbar-Lourie, 2010; Kim & Elder, 2008; Macaro, 2001) suggest that teachers' attitudes to language choices affect the amounts that they code-switch and the moments of L1 use. In this case, CS does not arise randomly. Instead, the more helpful the teachers believed the L1 was in classroom communication, the more they tended to use it strategically.

Empirical studies provide the evidence that teachers hold positive attitudes to CS when it is needed. This contradicts the earlier finding that the teachers feel guilty when they use the learners' L1 because they were told exclusively to use L2. Most of these studies generate the results through questionnaires and/or interviews. In Sail's (2014) interviews, the Turkish NNS teachers of English spoke of the benefits that L1

brings, including helping the students understand better, and increasing the communication in the classrooms. The teachers also mentioned that they switch to L1 when needed, for example, in explaining grammar and vocabulary, out of consideration for the students' linguistic comprehension (Sali, 2014:316). In a bigger study in China by Liu (2010), it is found, among 60 teachers in three universities, that 80% of the teachers 'strongly agree' or 'agree' with switching to Chinese. 81.7% of them believed that switching to Chinese is 'greatly beneficial' or 'beneficial' in L2 classrooms. These figures reflect the teachers' self-reporting that 70% of them 'sometimes' and 30% of them 'occasionally' switch to Chinese.

Teachers' own beliefs about language choices can be influential, but at the same time they may underestimate their L1 use in class. Van der Meij and Zhao (2010), whose study examined English courses at Chinese universities, illustrate that teachers' actual L1 practice is 7 times more frequent and 10 times longer than the teachers believed. Edstrom (2006) estimated her use of English in a Spanish L2 classroom to be approximately 5%-10% but, in fact, she used on average 23% of L1 in the full semester and as much as 71% of L1 in one session. The teachers in the study conducted by Copland and Neokleous (2010) use a good deal of Greek as L1 in their EFL classrooms. However, the teachers strongly denied their L1 use, saying in the interview that 'you [*sc.* a teacher] should normally avoid using the mother tongue as much as you can', a clear contradiction between the teachers' beliefs and their actions. These studies point out the danger that teachers who believe that appropriate CS is helpful to teaching and learning may use rather more L1 than they imagine.

Students' views on CS are also a research interest because they have the main role in their L2 learning. Most of the students in the empirical studies tend to prefer teachers to code-switch and not use L2 exclusively. The students in thirteen classes of students in three different South Korean High Schools agreed that the right amount of L2 use by the teachers in class was a mean of 53%. Macaro (1997), collecting interview data from English high schools, concluded that only a minority of students accepted the exclusive of L2 by their teachers, while most students strongly rejected the prospect of being exposed to the L2 without understanding the exact meaning of teachers' utterances. Employing CS for lower comprehending students is strongly preferred. A study by Rolin-Ianziti and Varshney (2008) collected questionnaires from 52 beginner students who had enrolled in three classes of French. The result shows that most of them preferred the use of L1 for classroom management. 83% of the students 'strongly agreed' or 'agreed' that their teachers should translate vocabulary and 96% of the students 'strongly agreed' or 'agreed' that translation aids memorization. Similarly, Ahmad and Jusoff (2009), in a questionnaire survey of 299

low proficiency students of English, finds that they show their teachers speaking L1 in class gives them positive affective support in learning. On averagely over 65% of the participating students indicated that their teachers' CS helped them to enjoy the communication classes, to feel satisfied with their learning, to feel more comfortable and to feel less stress. They also believe that teachers' CS promotes the effectiveness of the class' L2 learning.

2.2.6 The effect of CS in L2 learning

The relationship between teachers' language choices and learners' learning outcome is always of interest, although direct evidence is difficult to provide. A few studies look at the way in which teachers' language choices relate to their learners' language proficiency. Turnbull (2001) concludes that students in L1-exclusive classrooms have better language proficiency; he found his participating students in the two French classes where the L2 was used most frequently outperformed the students in the other two classes where the L2 was used much less. This result is in line with some earlier studies in the 1960s and 1970s (Burstall; 1968, 1970; Burstall et al., 1974; Carroll, 1975; Wolf, 1977).

On the contrary, recent empirical studies provide evidence either that the L1 does no harm to L2 learning or that L1 helps learners' L2 learning to different degrees. The first focus is on comparing the grammar learning outcomes: many studies indicate that teachers code-switch for grammar explanations. In 2006, Viakinnou-Brinson published her PhD thesis on the relationship between teachers' language alternation and learners' efficiency in learning grammar. She studied 40 university students aged 18 to 21 who had enrolled on a 15-week, first semester, elementary French 101 course. 92.5% out of the students spoke English as their first language while the rest of the participating students were native speakers of another language. The forty students were assigned to Class A, Class B, Class C or Class D, all of which were regularly taught by one native and three non-native teachers. On the targeted teaching days, the visiting instructor came to teach the 10 targeted grammar structures in French only or in a French/English regime. Class A and Class B were taught by the visiting instructor in a French-only situation on the same day that Class C and Class D were taught in French/English conditions. On the following targeted teaching day, Class A and Class B were, conversely, taught in French/English conditions while Class C and Class D were in French-only conditions. Following this logic of instructional language alternatives, the students in the four classes were taught 10 grammar structures during 8 targeted teaching days. They immediately afterwards had tests in class time, including the particular grammar structures which had just been taught. They also had post-tests which took place at the end of the

semester. The result showed no significant difference in the test results between the French-only and the French/English classes but statistically the post-test favoured the French-only setup. In other words, whether a teacher uses the L2 exclusively does not differentiate grammatical performance in the short term; however, the exclusive use of the L2 in instruction helps the grammar structures to 'stick better' (Viakinnou-Brinson, 2006:91) in learners' heads in the longer term.

Another focus on the empirical studies is to compare learners' outcomes in vocabulary learning when the teachers translate the vocabulary items. Tian and Macaro (2012) note in their study that the impact of L1 lexical information on L2 lexical information is clear in tests immediately afterwards, but is less clear if the test is delayed. A similar study is reported by Zhao and Macaro (2014). They reveal a slightly different result: that teachers' L1 use, compared to L2-only explanations, may lead to greater vocabulary gains in both immediate and delayed tests. The same result appears in tests of concrete vocabulary (e.g. dog, cat and table) and abstract vocabulary (e.g. democratic, opaque and approachable). Another study conducted by Saz et al. (2014) notes that the abundant use of translation may increase accuracy in the short term but over a longer span, it may negatively affect accuracy and possibly fluency. However, the students on whom translation in moderation was used seem to benefit most in this lexical task. In short, the studies which investigate the effect of L1 use show that translation used judiciously can bring benefits for L2 vocabulary learning.

Does CS assist with the aspects of L2 learning other than vocabulary? Tsao (2004) addressed this question in university EFL classrooms in Taiwan and found the impact of L2-only instruction was limited to learners' listening and reading comprehension. She compared the listening and reading comprehension of students who were taught English in English-only conditions and mainly in Mandarin (L1). Tsao, who acted as both instructor and researcher had 47 students under mainly Mandarin instruction and 52 students under English-only instruction. The classes were observed through two semesters. Regarding the comprehension test, one took place in the middle of each semester and the other took place at the end of each semester. The exam, based on what had been taught, included a listening and reading comprehension check. The study concludes that the instructional language is unlikely to impact either on the learners' listening or their reading comprehension, since the results of the exams for the two groups did not show any significant difference.

2.3 Classroom discourse analysis

To investigate CS in classroom discourse, the methods for analysis also play an important role. Discourse Analysis (DA) and Conversation Analysis (CA) have been the

two major approaches to studying classroom discourse (Levinson, 1983). Seedhouse (2004) further suggests that the overwhelming majority of approaches to L2 classroom at an early stage use DA. However, when the recent focus of CS shifted to its roles in various classroom contexts, in turn taking and in the social perspectives of the classroom discourse, CA seems to fit better for this purpose. This section first compares the advantages and limitations of DA and CA. It goes on to show how each of them fits in the studies related to CS.

2.3.1 Discourse Analysis (DA) and Conversation Analysis (CA)

Discourse Analysis (DA) uses principles and methodology to analyze classroom discourse from the perspective of structural-functional linguists (Chaudron, 1988:14). It is a system-based approach and has a preconceived set of descriptive categories. The categories are based on the structural and functional aspects of the discourse. For example, 'May I take your name, please?' could be labeled as a 'request', a speech act. When a sequence of speech acts have been plotted, a set of rules then form, to make a coherent discourse. A hierarchical system is then developed as an overall classroom discourse (Seedhouse, 2004:56). The best-known proponents of the DA approach to classroom interaction are Sinclair and Coulthard (1975). Their most significant finding so far for classroom discourse is the three-part sequence in the classroom interaction. It is generally known as 'IR(F/E)'. 'I' means the initiative from either teacher or student; 'R' refers to the reply from student or teacher; 'F' (feedback) or 'E' (evaluation) is then normally delivered by the teacher. Sinclair and Coulthard present 22 speech acts for each discourse unit. These speech acts form a 'move'; moves form an 'exchange'; exchanges form a 'transaction' and transactions form a lesson, the largest unit of the hierarchy of the classroom interaction.

Unlike the DA approaches that focus on the system and function of discourse, Conversation Analysis (CA) dynamically pays attention to turn-taking, opening and closure, communication breakdown and repair, and the interpersonal facets of an interaction. If we treat DA as a linear and sequential approach, CA, which additionally provides social perspectives of the interaction is more dynamic. To illustrate the difference of approach between DA and CA, we analyze the same transcript of a teacher-student interaction shown in Extract 2.1 with these approaches in turn. These differently shaped analyses are based on Seedhouse's (2004) comparisons.

Extract 2.1

1 T: Vin, have you ever been to the movies? What's your favorite movie?

2 S: Big.

3 T: Big, OK, that's a good movie, that was about a little boy inside a big man,
4 wasn't it?
5 S: Yeah, boy get surprise all the time.
6 T: Yes, he was surprised, wasn't he? Usually little boys don't do the things that
7 men do, do they?
8 S: No, little boy no drink.
9 T: That's right, little boys don't drink.
(Seedhouse, 2005:59)

Following IRF (referring to (IRF/E)) pattern, the DA analysis for Extract 2.1 reads: Line 1 is initiation (I); line 2 is reply (R); line 3 and 4 is feedback (F) followed by a new initiation (I); line 5 is reply (R); line 6 and 7 is feedback (F) followed by a new initiation (I); line 8 is reply (R) and line 9 is feedback (F). The speech act for each unit should read: Line 1 is 'elicitation'; line 2 is 'reply'; line 3 and 4 is 'acknowledgement' followed by 'elicitation'; line 5 is 'reply'; line 6 is 'acknowledgement' followed by 'elicitation'; line 8 is 'reply' and line 9 is 'evaluation'.

With the CA approach, the same extract is reanalyzed as follows. Teacher in line 1 shapes the topic 'movie' by asking the student, Vin, 'have you ever been to the movie? What's your favourite movie?', which gives the student a circumscribed space to respond in. The topic 'movie' is then shifted to 'Big' followed by the student's reply in line 2. The teacher validates and approves the subtopic by saying it is a good movie and lets the student carry on this subtopic by remarking 'that was about a little boy inside a big man, wasn't it?' The teacher constrains the student's next turn by making a general summary of the film's plot. It gives the information to those in the classroom who may not know the film and also gives space to the student to keep this subtopic. The tag question in line 7 effectively allocates the speaking turn to the student and at the same time allows the student to develop the subtopic. The student obviously takes the speaking turn and carries on developing the subtopic by saying 'Yeah, boy get surprise all the time'. At this point, the teacher could choose (a) to correct the learner's utterance, which is not grammatically correct, (b) to continue to develop this subtopic, or (c) to decline to adopt the student's subtopic and change the interaction. The teacher chooses to combine the options of (a) and (b) in line 5, 'Yes, he was surprised, wasn't he?' It is a positive evaluation of the propositional content of the learner's utterance followed by an expansion of the learner's utterance into a sequence of correct linguistic form. This type of 'by-the-way' repair, embedded correction (Jefferson, 1987:95) is often used in natural speech, especially in adult-child conversation. The teacher in the second part of line 5 gives information regarding the plot of the film which, like line 3, outlies the plot to those who have not

seen the film and also allocates the speaking turn again to the student so that he can develop the subtopic. Student takes the opportunity again to develop the subtopic by saying 'that's right, little boys no drink'. 'Little boys no drink' is linguistically incorrect and this triggers the teacher first to give a positive response 'That's right' which agrees with the content of the student's utterance. The teacher further corrects the grammatical fault by saying 'little boys don't drink' as an embedded correction, like the one cited above.

The above analyses by DA and CA show the following differences: (1) in terms of size, CA takes more space than DA. (2) DA is a robotic like method that provides simpler analysis while CA is relatively dynamic and provides a more complicated view of classroom discourse. (3) DA focuses on the functional side of the classroom discourse while CA, in addition to its pragmatic functions, pays attention to the turn takings, the pedagogical goals and the repairs of communication.

2.3.2 Limitations of DA and CA in classroom discourse

Although the IRF pattern is the most widely accepted form of classroom communication analysis, its limitations are noted in criticism of it. The biggest criticism of DA argues that a clause may have more than one function. 'It is almost impossible to say precisely what function is being performed by a teacher (or a learner) act at any point in a lesson' (Walsh, 2006: 48), in particular because interaction patterns in classroom settings are so complex. Another weakness of the IRF pattern is that it was generalized in corpora from classrooms of the 1960s which were traditional and teacher-controlled. Wu in 1998 argued that Sinclair and Coulthard's IRF pattern had gone out of date and could not apply to modern classrooms where learners had gained more autonomy and power in terms of classroom talk. In addition, Sinclair and Coulthard's DA model was derived from L1 classrooms in the UK. Although it has also been tested in L2 classrooms, a full-scale and explicit DA model in L2 classroom interactions has not been published (Seedhouse, 2004:56). Walsh (2006) comments, 'in general, DA approaches fail to take account of more subtle forces at work such as role relations, context and sociolinguistic norms which have to be obeyed. In short, a DA treatment fails to adequately account for the dynamic nature of classroom interaction and the fact that it is socially constructed by its participants. By the same token, DA approaches do not adequately account for the range for contexts in operation in a lesson and for the link between pedagogic purpose and language use' (Walsh, 2006:48).

Although CA manages to present the complex of classroom interactions, there are still limitations. The most serious criticism of CA is that such models are unable to generalize findings 'owing to the fact that they consider classrooms in isolation and

make no attempt to extend their findings to other settings' (Walsh, 2006:54). In this case, only specific illustrative examples can be offered. It is difficult to use these approaches to handle large sets of data because it would be so time consuming. It is commonly estimated that transcribing and analyzing 1 hour of talk using such methods would take between 5 and 12 hours of research time (Mercer, 2010). Last but not least, CA approaches make no attempt to present the order of the classroom interaction. This contributes to the factor that the 'snatches of discourse and their ensuing commentaries may appear to have been selected randomly with no attempt to evaluate their significance to the discourse as a whole' (Mercer, 2010).

2.3.3 DA vs. CA for the studies in relation to CS

In an early work of Lin (1999), he examines how CS are engaged in IRF built in the following two formats in the reading class and shows how they successfully bring the enjoyment of the story telling to the students.

(1) Story-Focus-IRF:
Teacher-Initiation [L1]
Student-Response [L1]
Teacher-Feedback [L1]

(2) Language-Focus-IRF:
Teacher-Initiation [L1/L2]
Student-Response [L1/L2]
Teacher-Feedback [L2], or use (2) again until Student-Response is in L2

(3) Start (2) again to focus on another linguistic aspect of the L2 response elicited in (2); or return to (1) to focus on the story again.
(Lin, 1999:404)

The study notes that the enjoyment of the story can result from the use of the story-focus IRF integrated with the language-learning focus IRF. It also notes this participating teacher never starts an initiation in L2 but always starts in L1. L1 is used strategically to start with what learners can fully understand and are familiar with and to go on from L1 to L2 expressions, which the students are asked to become familiar with.

Recent work has started to widen the field of CA. Üstünel and Seedhouse (2005) were the first, using the CA approach, to investigate the relationship between

language choices and the pedagogical focus in a Turkish university. They concluded 'the conversational analysis concept of preference helps us to understand the organization of code-switching in the L2 classroom' (Üstünel & Seedhouse, 2005:321). Cheng (2013) uses the CA approach to examine the relationship between participants' orientation towards two different types of classroom interaction (assessment talk and an instructed language learning activity) and their CS practices in a Chinese as a foreign language classroom. It finds the teacher and student use CS as an interactional resource to achieve a common pedagogical goal when a mismatch in their orientation occurs.

In short, DA and CA have both been used in the literature in relation to CS studies. Using these approaches is neither right nor wrong. Either can be used for a study, depending on one's aims.

2.4 Summary, issues and the future

This chapter presents a range of research in a chronological order in relation to language choices in classrooms. It started with the virtual status of L2 classrooms where L1 was banned. It was believed in the research and theories that L2 should act as the only medium in classrooms and this belief influenced the policy making. Therefore in many countries, learners' L1 is still banned or discouraged in L2 classrooms. However some researchers started to question whether L1 harms students' L2 learning in class even when it was banned. A range of empirical studies began to provide evidence that L1 can be strategically used by teachers for better classroom communication and better understanding of the content, reducing students' cognition load. Recent studies further provide direct evidence that L1, instead of harming L2 learning, actually helps it, to a certain extent. It is also important to find that teachers' beliefs act as a crucial key point for making decisions of language choices. If the topic of language choices is included in teacher training, their L1 use can then be used strategically to benefit the learning of L2 instead of reserving it for cases of laziness (Edstrom, 2006) or time saving (Liu, 2003; Liu et al., 2004; Rezvani & Rasekh, 2011).

This chapter also presents the most commonly used approaches for classroom discourse analysis: DA (Discourse Analysis) and CA (Conversation Analysis). Bearing in mind their different advantages and limitations, either of these CS related studies can be selected for different aims.

Before ending this chapter, I would like to draw readers' attention to some issues arising from the literature. CS in L2 classrooms has been discussed widely and has attracted a substantial volume of theories and empirical studies. However, Lin (2013) in her review of the literature for the past three decades points out the

following issues. First, the studies tend to be overly descriptive and repetitive. The literature tends to stop at when the discussion reaches the existing practices of CS rather than moving forward with innovative experiments for CS practice. This step forward is needed for building up new findings on top of what has been known. The studies investigating CS in lexical learning (e.g. Macaro, 2009; Tian and Macaro, 2012; Zhao and Macaro, 2014) are good moves and open up new topics for CS research. Second, Lin (2013) brings up more angles from which to look at CS: for example, the current research lacks evidence of students' CS, written CS, studies conducted by teachers (as teacher-researchers), or students (as student-researchers). It also lacks studies directly comparing CS as used in a language classroom and in a content classroom. It is hoped that these comments will also encourage future research to take another step forward.

Chapter 3: Methodology and Quantitative Results

This chapter first describes the research methodology in the present study. It includes the overall research approach in section 3.1, the data collection procedures in section 3.2 and the approaches to each research question in section 3.3.

Following the description of the methodology, it presents two quantitative results, namely, (1) TTT (teacher talking time) and STT (student talking time) in the classes of the two participating NS (native-speaking) teachers and two NNS (non-native speaking) teachers (section 3.4); and (2) the language choices in adjacent interactions between teachers and students (section 3.5).

3.1 Research Design

This section shows how this study was designed, from the following perspectives.

3.1.1 Methodological stance

To facilitate the investigation of the language choices in teacher-student interactions and teachers' use of *OK*, this study uses 'classroom observation' with the aim of providing authentic classroom discourse. Observation provided digital records of what happens in the observed classroom. The observer's field notes also helped to keep a written record of the class (Allwright, 1983). In addition, the study also provides examples to illustrates 'who says what' in these classrooms. This enables the readers to understand more clearly the nature of the observed classes and the analysis (Cohen et al., 2000).

3.1.2 Research tools

Three research tools were employed in this study. Observation involved two of them: video recording and field notes. Video recording kept a record of the classroom interactions and was important for collecting 'visual interactional cues' (Dufon, 2002) which do not appear verbally. However, video recording is not perfect because it might influence classroom interactions. Teacher and students may behave differently when a video recording is being made. Bearing in mind this limitation, this study has tried to reduce the distraction as much as possible. This video recording is the main reference for the transcription. Second, field notes record some classroom phenomena that may not be picked up by video recordings. Choosing this research tool leads to the next question, 'how much should be noted?' This depends on the value that researchers place on field notes (Mulhall, 2003). If field notes are taken as primary sources, making detailed notes may lead to the loss of the deeper

experience of being part of a community. If such notes are viewed as secondary, the observer is freer to immerse him/herself in the community (Mulhall, 2003). Deeper immersion seemed to fit this research better and thus I took field notes only when I believed that certain phenomena or experiences could not be seen in the video recording. Following this method, the field notes were also added to the transcript for analysis.

Third, the post observation interviews took place directly after the classroom observation. Interviews are important ways of collecting data and are very often used to verify observation (Lodico et al., 2006). The post-observation interview, as suggested by McCormick (1997), aims to learn the teaching and learning goals of the lesson. It also helps in gaining information regarding the participating teachers' linguistic background, educational background, teaching experience and their students' comprehension of L2.

3.1.3 The quantitative approach and the qualitative approach

This study follows the advocacy by the scholars (e.g. Salomon, 1991, Creswell, 1994, Jacobs et al., 1999) of employing both quantitative and qualitative approaches and drawing on the strengths of both in a single research study. The quantitative approach is used to compare the nature of the utterances by NS and NNS teachers. The qualitative approach provides examples of a particular characteristic in the language use of NS and NNS teachers, for example, if it finds both of the NS teachers switching to learners' L1 for a particular function. The quantitative approach informs us how frequently this function appears, compared with the rest, while the qualitative approach provides examples to illustrate the relationship between the form of CS and its function. This study is able to employ both approaches because the size of the corpus makes possible an analysis with a qualitative approach which may be difficult for a larger corpus.

3.1.4 Reliability issues

The concern for reliability stems from the nature of quantitative research. The problem of quantitative research is that it involves the 'use of standardized measures so that the varying perspectives and experiences of people can fit into a limited number of predetermined response categories' (Patton, 2002:14) and therefore 'a quantitative researcher needs to construct an instrument to be administered in a standardized manner according to predetermined procedures' (Golafshani, 2003:598). In other words, how can we be sure that these pre-defined categories generated from other studies fit in a separate study? To test the reliability of

categorization, Frick and Semmel (1978) propose that the simplest approach is to have several raters or coders who apply the system to a predefined segment of classroom interaction. It then calculates the ratio of the agreed-on items to those that are not agreed on and go on to set up an agreed categorization.

To reduce the concerns of reliability, this study develops its own categorization instead of using predefined categories. A bottom-up approach is used to look at each investigated item closely (for example, the functions of teachers' CS) and puts all the CS with a similar function in the same group. Once grouping is completed, a term for the category that covers these CS functions is created. After the list of categories is ready, a second rater is invited to test its reliability. The test confirms the reliability when the agreement between two raters is above 70%. The details of the tests are presented in later sections of this chapter (3.3.5.2 and 3.3.7).

3.2 Data Collection

In order to study the discourse of the NS and NNS teachers and how it affects their students' language use, this study invited 2 NS and 2 NNS teachers to participate. 1 NS and 1 NNS teacher shared 1 group of students while the other NS and NNS teacher shared the other group. Not only is the NS teachers' language use compared with that of the NNS teachers but the language use of one group of students with one teacher is also compared with the language use of the same group of students with the other teacher. All the observed classrooms belonged to the same senior high school in Taiwan. They were selected because this would reduce any possible impact caused by the variables for regions, for example, policies and practices in English education which vary from one region to another. In senior high schools in Taiwan, the students are aged between fifteen and seventeen. Under the Taiwanese educational system, a student enters senior high school upon completion of 3 years at junior high school and 6 years of primary education. Following 3 years of senior high school, a student enters the university level of education. The following sections describe the schools, teachers and students in this study and present the procedures of the data collection.

3.2.1 Gaining permission for research sites

In order to compare the classrooms of NS and NNS teachers, this study needed a school that offered English teaching by both NS and NNS teachers and, at the same time, would allow me, as an observer, to sit in the classroom and also make video-recordings of what was going on. It was not difficult to target a school that had NS and NNS teachers, since almost every school in Taiwan runs a website that clearly

shows its teaching activities and teachers' professional profiles. However, it was very difficult to get permission to enter a school for the purpose of classroom observation that included video recording, taking field notes and post-observation interviews with teachers.

I sent by Email and by post a research proposal and a proposal for classroom observations to 15 principals of 15 schools located in various cities. Approximately 4 months later, I had received 10 rejections and heard nothing from the other 5 schools. Apparently those schools that had sent nothing were not interested in this project. When I was trying to find another batch of possible schools, I received permission from Mr. Liao, the principal of a private high school in Taiwan. I had not sent him my proposal but he had heard about my project from a relative of mine who was a good friend of his. Luckily this permission reached me at a wonderfully appropriate time. In addition, permission was granted by all the participating teachers, the students and their parents. The principal's permission allowed me to video-record the lessons and sit in the classrooms as an observer. The teachers', students' and students' parents' permission allowed me to use their discourse for this study. By collecting the authorization sheets with the participants' signatures, I agreed to observe the classrooms on Wednesday 30th December 2009.

Due to reporting concerns, the name of the participating school has been withheld. This school is located in Taichung city, which is mid-way along the western coast of Taiwan. It offers curriculums for academic and vocational training. The classes that I visited were offered by the 'Applied English Department' which provides vocational English-language training to the students. Their programme offers such courses as 'English writing', 'English reading' and 'English Conversation' and advanced training courses, for example, 'Business English' and 'News English'. Their students are expected to comprehend English as a foreign language in the four cardinal skills: speaking, listening, reading and writing. The school aims to equip students to develop their future career or progress to the next level of academic studies.

3.2.2 Participant portfolios

All the participating teachers were assigned pseudonyms: Teacher A, Teacher B, Teacher C and Teacher D. Their students are numbered according to their appearance in the classroom talk. For example, the first student who speaks in the class is labeled 'S1' in the corpus. A summary of the teachers' profiles is presented in Tables 3.1 and 3.2.

Table 3.1 Participating teachers' portfolio

	NS teachers		NNS teachers	
	Teacher A	Teacher B	Teacher C	Teacher D
Age	Mid 30s	Late 30s	Late 40s	Late 30s
Gender	M	M	F	F
Qualification	B.A.	B.A.	M.A.	M.A.
Teaching years	9	15	6	8
Ethnic group	American white	American white	Han, Chinese	Han, Chinese

Teacher A, an NS teacher had been teaching in this senior high school for 5 years. He received his first degree, B.A., in Engineering in an American university. He was trained as an EFL teacher (of English as Foreign Language) in the U.S.A. in the year 2000. Before coming to Taiwan, he taught English at a high school in Osaka, Japan for 4 years. Teacher A speaks English as his first language. Based on the information gained at the post-observation interview, he also speaks Japanese at a basic level and Mandarin at an intermediate level. In the observed lesson, Teacher A teaches 'English Conversation'.

Teacher B, an NS teacher has been living and teaching in Taiwan for 10 years. Before his first arrival in Taiwan, he taught English to non-native students in the U.S.A. and the U.K. for 5 years. He received his B.A. in Economics at an American university and also received training in EFL teaching in the U.S.A. Apart from English as his first language, after living in Taiwan for 10 years he speaks Mandarin at an advanced level and Southern Min, commonly known as 'Taiwanese', at a basic level. The latter is a language variety widely used in Taiwan. In the observed class, Teacher B, like Teacher A, teaches 'English Conversation'.

Teacher C, an NNS teacher, started her employment in this school as a full-time EFL teacher six years ago. She was brought up in Taiwan and is a native Mandarin speaker. Her first language is Southern Min, and her English comprehension is at an advanced level. She gained her teaching license[2] for EFL teaching in Taiwan before receiving her last degree, M.A. in English Education, at a Canadian university; she then lived in Canada for more than 7 years after completing her studies. Teacher C teaches 'English Reading' as a subject in the observed class.

Teacher D, a NNS teacher started to teach EFL in this senior high school 8 years ago. Like Teacher C, Teacher D also has a license to teach EFL in Taiwan. Her linguistic

[2] A teaching license is required for every teacher who works for a school in Taiwan.

background is very similar to Teacher C's. She speaks Mandarin as her native language, Southern Min as her first language and English at an advanced level. After receiving her first degree, a B.A. in English literature and linguistics at a Taiwanese university, she went to the U.S.A. for her Master's programme in English Language Teaching. Having completed the 2-year programme, she received an M.A. in English Language Teaching. She teaches 'English Writing Skills' in the observed lesson.

The profiles of the participating students are shown in Table 3.2. The two groups of students also have pseudonyms and are labeled 'Group 1' and 'Group 2' in this study. All the students are studying for the same programme but are in different years of senior high school education. On the basis of the information received in the post-observation interviews, the teachers agreed that the English proficiency of all the students is at the intermediate level. To compare the students' language use in the NS and NNS teachers' classrooms, Teacher A and Teacher D both taught Group 1. Teacher B and Teacher C taught Group 2. This teaching arrangement is based on the curriculum and therefore was not new to the teachers and their students.

Table 3.2 Participating students' portfolio

	Group 1	Group 2
Age	16-17	17-18
Year of Senior High School	Year 1	Year 2
Average English proficiency	Intermediate	Intermediate
Number of students	50	46
Teachers	Teacher A and Teacher D	Teacher B and Teacher C

3.2.3 Data collection procedures

This section provides data collection procedures from the classroom observation to the post-observation interviews with the participating teachers.

3.2.3.1 Observation: video recording and field notes

A session (50 minutes) with each teacher was digitally video-recorded, making four recording sessions altogether. Before each session started, the video-recorder was set up beside me on a tripod at the very back of the classroom. Trying to keep records of real classroom interactions, I put the recorder at the back of the classroom and tried to minimize the students' awareness of something new in the classroom. In addition, I deliberately kept some distance from the participants in order to reduce

any possible distraction caused by the video recording or by my presence. The machine was set next to me because in this way I could control it and manually focus on whomever was speaking. Although I tried to maximize the functions of recording and minimize the distraction, there are still some limitations. First, the position of the camera means that only students' backs could be photographed. Their facial expressions are excluded from the recording but my field notes help to catch the moments that are critical to the teacher-student interactions but excluded from the video recording. Second, not every utterance was clearly recorded because of the distance between the microphone and the participants. The recording missed some words and has five incomplete utterances from the students. However, this did not cause problems for the data analysis.

3.2.3.2 Post-observation interviews with participating teachers

The post-observation interview was designed to receive information at the end of the class from the participating teachers. The questions include the teaching goal in each class, the teachers' linguistic background, educational background, their teaching experience and their students' comprehension of English. The information received from the interviews is presented in the participants' portfolios in Table 3.1 and Table 3.2. The interviews in the teachers' offices lasted 5-10 minutes.

3.2.4 Structure of the lessons

Teacher A, who teaches 'English Conversation', works to build up students' conversational skill in English, the target language. The aim of this observed lesson was to let students understand and express time expressions. His teaching activities in this lesson all took them nearer this goal. In addition, the 'No Mandarin' policy in class forbids the students to speak anything but English. Two main teaching activities were involved in his class. After he checked the students' attendance, he started his first teaching activity. He requested his pupils to stand up and listen to a CD consisting of several dialogues. After each dialogue finished, he stopped the CD player and asked the students to answer the time of the specific event mentioned in the dialogue. The students who put their hands up, gained permission to speak and gave the right answer were allowed to sit down. Gaining one's seat is the reward in this activity. The second major teaching activity was to leave the students to work independently and answer the questions on the topic of 'time' in their textbooks. As with the first teaching activity, all the students were asked to stand up and could resume their seats if they orally gave the correct answers to these questions in the book.

In Teacher B's class, the main topic was phrasal verbs structured by 'look'; for instance, 'look after' and 'look back'. To cover this topic, students had been split into couples in the previous session and add to give a presentation regarding a phrasal verb involving 'look' in the observed session. The presentation had to include the meaning of the phrasal verb and a dialogue that included it. Ten pairs of students gave presentations on the day of the observation. It is interesting to note that casual chat between teachers and students accompanies the writing on the blackboard by the relevant students that precedes their presentation. These casual chats cover various topics, for example, the new hairstyle of one of the students. This makes this lesson less controlled by the teacher; the students have control of the topic and more space to speak. By the end of this session, Teacher B was inviting his students to listen to a pop song. He made some gaps between the words of the lyrics. The students were requested to fill in the missing words as they listened to the song. This activity aimed to develop listening comprehension. Like Teacher A, Teacher B practices a 'No Mandarin' policy. Students are discouraged from using their L1 and encouraged to speak L2.

In an 'English Reading' class aiming to develop students' English reading ability, Teacher C led her students to read an article in relation to a new form of music player, 'MP3' in the observed session. The main teaching activities included: (1) translating the L2 words or phrases into L1 in order to make sure they fully understood the content; and (2) focusing mainly on form, apart from the meaning. Hence Teacher C picked up those words or sentences that required grammar explanation. The explanations of grammar appeared more of a teacher's monologue.

Teacher D teaches 'English writing' with the purpose of letting the students understand the structure of a written work in English and further develop their writing skills. Teacher D introduced in the observed class the idea of 'comparison' in written work. She used an article that compared the different life-styles of the Eskimos and the American Indians. In the first teaching activity, she described the main structure of the article and followed this up by making sure that the students understood the whole article by translating words or phrases into the learners' L1. She also used PowerPoint slides to present ways of using specific words or phrases in writing. In the second activity, Teacher C asked students to read a new article silently and answer questions on it. In Teacher D's class, most of the speaking space was taken up by the teacher's monologue clarifying the meaning and structure of the written content.

3.3 Data Analysis

The research data for this study includes 200 minutes of video recording and the field

notes. The following sections explain the method of analysis and data interpretation that provides answers to the research questions.

3.3.1 Classroom data analysis and transcription

As soon as the data were collected in the video recording and field notes, all the interactions were removed, apart from those between teachers and students, which are the focus in this study. The classroom activities which were excised included the students' peer interactions (in Teacher A's and Teacher B's classes), the students' reciting the content of the textbook (Teacher A's, Teacher C's and Teacher D's classes) and the students' singing (Teacher B's class). The students' presentations in Teacher B's class are included because Teacher B also takes part in them. According to Mile and Huberman (1994) and Wells (1996), this way of treating the data is called 'data reduction'. Through data reduction, the data involves only the class periods and class episodes selected from the original database that relate to the research questions.

After this data reduction, the material was then transcribed to form a 24,752-word corpus. This study adopts Du Bois' (1991) DT (Discourse Transcription) system, which is used for research on transcribed spoken discourse. The principles of transcription designed by Du Bois are intended to fit a variety of approaches to the study of discourse and to be used for diverse purposes. The transcription, therefore, presented much of the nature of the interactions between a teacher and the students, in particular their language use and language choices. It also presents the flow of the classrooms, the speaking turns, speech timing and nonverbal cues such as gaze and body orientation.

3.3.2 Data analysis of the teachers' talking time and students' talking time

Analysis of the teacher talking time (TTT) and student talking time (STT) is quantitative. To measure the teachers' and students' talking time, the length of their utterances in teacher-student interactions is timed. The length of TTT and STT is measured in minutes and seconds. The same method is used by various studies (for example, Barnard & McLellan, 2013). It enables a comparison to be made between the present study and the literature. This is presented below in section 3.4 of this chapter.

3.3.3 Data analysis for language choices in teacher-student interactions

There are several methods in the literature of analyzing the quantity of L1 and L2 use. The first choice is word count. Rolin-Ianziti and Brownlie (2002) counted words when

they looked at the frequencies of English and French in their observed classrooms. Nakamura (2005) also used word counting when she studied the language alternation by a young bilingual child between English and Japanese in spontaneous naturalistic conversations. Instead of counting words, Polio and Duff (1994) measured the frequencies of teachers' L1 and L2 use by counting the units (clauses) in each language, including 'TL', a category of clauses formed by the target language and 'English + mixed', a category formed by L1 (English) and mixed language, if applicable. Similarly, Chang (2009) in her unpublished PhD dissertation noted the frequencies of teachers' L1 and L2 use by counting 'c-units', i.e. main clauses and subordinate clauses attached to or embedded in the main clause (Crookes, 2002). The c-units are classified as one of the following: (1) an English c-unit, (2) an English c-unit embedding one or a few Mandarin words or phrases, (3) a c-unit with an almost equal mixture of English and Mandarin, (4) a Mandarin c-unit and (5) a Mandarin c-unit embedding one or a few English words or phrases. This method is close to Polio and Duff's (1994), but is more detailed in its classification. It was developed on the basis of the syntactic discrepancies between English and Mandarin. Word counting in English and Mandarin may not generate an accurate quantity because a Mandarin text normally contains more words than an English text does. A word (known as a character) in Mandarin sometimes needs an embedded character to make sense. For example, '學校' (pronounced as 'xuexiao') means 'school' in English. Word counting shows two words in the Mandarin version but only one word in the English version. In this case, word counting may not be the best choice when comparing the quantity of words between English and Mandarin utterances.

Taking the same consideration of syntactic discrepancies between Mandarin and English, this study does not choose word counting for measuring frequencies. Unit counting, moreover, does not provide direct information on how much of each language is used in the talk. Therefore, to look at the overall interactions between teachers and students, this study uses 5-second sampling (Macaro, 2001). In this, the recording is sampled every 5 seconds and it is coded according to the speaker and the language being used. Lo (2014) adopts the same measurement for finding out how much Mandarin and English were used in teacher-student interactions. By 5-second sampling, this study measures each teacher's input and those of his/her students; the results are presented in section 3.5.1 of this chapter.

Apart from teacher-student overall interactions, this study also measures the teacher's and students' language choices in adjacent interactions. The purpose in doing so is to see if any particular language choice follows any language choice. In this case, the utterances in adjacent interactions, by their linguistic structures, are labeled 'L1' (Mandarin), 'L2' (English) or CS (a mixture of L1 and L2). Extract 3.1

illustrates an example of the labelling system. Teacher A's utterance in line 2, adjacent to the student's utterance in line 3, is labeled 'L2'. The student's utterance in the next turn is 'L1'. The teacher's 'L2' follows it. To mark the language choices in teacher-student interactions, the language choice in this case, teachers' L2, is followed by the student's L1. Then the student's L1 is followed by the teacher's L2. Following this method, every adjacent teacher-student interaction is separately processed and labeled. Section 3.5.2 of the present chapter reports the quantitative results of the language choices in adjacent teacher-student interactions.

Extract 3.1

1. T: Ah, Tina. OK, good good good. We:ll ((LOOKS AT HIS WATCH)) don't be angry
2. at me. You can be angry at Francis because Francis said
3. S3: ***Weishen[me..]***?
   Why
4. T: [Her] legs are very sore. I asked why are they sore. She said because we sit down too long. I said oh! I can help you. Everybody..

(NS_A_15-19)

3.3.4 Data analysis for linguistic structures of code-switching

This section presents the method of examining the linguistic structures of NS teachers' and NNS teachers' CS in this study.

3.3.4.1 Unit for analysis

Two main types of CS are found in the corpus, occurring either within a clause or between clauses. Borrowing Poplack's (1980) terminology, 'intra-sentential CS' refers to CS in a clause and 'inter-sentential CS' refers to CS between clauses. When a 'clause' is a boundary for the two types of CS, how is it defined? The boundary in this corpus is clearly labeled by the symbols for a period "." or a question mark "?". A period for a written text is marked differently from a period for verbal coding. A period in a written text normally ends a grammatically complete sentence. However, a period, based on the Du Bois' (1991) coding system, identifies the finality of an intonational morpheme. Therefore it can be used for a grammatically incomplete sentence if it is the end of an intonational morpheme. A question mark can also end a clause. In Extract 3.1, there is 1 clause in this utterance and the CS takes place in it. There it is categorized as an 'intra-sentential CS'. Another example occurs in Extract 3.2, which includes three clauses. The first CS is 'Jiexici (preposition). You got it.' It takes place between clauses and therefore is an 'inter-sentential CS'. The second CS,

occurring within the clause, is labeled an 'intra-sentential' CS.

Extract 3.1
T: Our clock has sixty, alright, so ***sifenzhiyi***..is how many minutes?
"a quarter"
(NS_A_121)

Extract 3.2
T: ***Jiexici***. You got it. Which ***Jiexici***? Class will begin bah ((A SOUND TO
"Preposition" "preposition"
SHOW THE WORD IS MISSING HERE)) ten minutes.
(NS_A_465-466)

3.3.4.2 Structure for analysis

The analysis of the linguistic structures of CS in this study adopts Poplack's (1980) three categories of CS: intra-sentential CS, inter-sentential CS and tag switches. Although it becomes repetitive here, as discussed in Chapter 2, the same points are presented again with different examples from the present corpus in order to have a full picture of the analytical structures. Intra-sentential CS occurs in a clause where one language keeps the grammatical structure while the other language acts as an insertion. In other words, when the insertions are replaced by their translations, the grammatical structure of the sentence is not violated. An example is shown in Extract 3.1 above where the Mandarin insertion 'sifenzhiyi' (a quarter) can be replaced by its English translation 'a quarter' without semantical or grammatical violation.

Inter-sentential CS takes place between two clauses when one clause is completely constructed in one language and the other clause is in the other language. Extract 3.3 illustrates an inter-sentential CS. A tag switch has a 'less intimate' (Poplack, 1980:589) relationship with the main clause. It is freely inserted in a clause with no fear of violating its grammatical structure. In Extract 3.4, there are two English insertions in a Mandarin base. 'OK' is an English insertion and categorized as a tag switch because it can be removed freely without changing the semantic and grammatical structure of the utterance.

Extract 3.3
T: …where did I…stop last week? ***Wo shangci shang dao nali ya***?
"Where did I stop last week?"

(NNS_C_8-9)

Extract 3.4

T: …**OK**, *Zhe shihou* **player** *jieshie wei sheme?*

this time/case explain what

"OK, how do you explain 'player' in this case?"

(NNS_C_123-124)

To investigate intra-sentential CS further, this study also adopts Myers-Scotton's idea of 'Matrix Language' (ML) and 'Embedded Language' (EL). ML is used to signify host or base language and EL to signify guest or donor language. The essential concept is that one of the languages, ML, keeps its grammatical structure while the other language, EL, is inserted into its framework. It actually shares the common view of Poplack's intra-sentential CS although the terminology is different. In order to examine intra-sentential CS more closely, this study adopts the terms 'ML' to indicate the main structure in one language and 'EL' to refer to the insertion of the other language. For example, the Mandarin expression in Extract 3.4 above is ML and English is EL. With the above approach, the linguistic structures of NS and NNS teachers' CS are discussed and presented in the first half of Chapter 4.

3.3.5 Data analysis for the pragmatic functions of code-switching

Examining the functions of teachers' CS has been one of the main streams of studying CS and therefore it has attracted a big volume of studies. This study also investigates the functions of CS from the four participating NS and NNS teachers. However, instead of adopting the pre-defined categories of the functions in the literature, this study looks separately at every CS in the teachers' utterances and its pedagogical function, because it is believed that teachers code-switch for pedagogical reasons in classrooms where all the activities are expected to reach teaching and learning targets. Upon collection of the whole 422 instances of CS, a bottom-up approach is employed to examine each CS and further to develop its categorization for this study. This section first explains the bottom-up approach used for the categorization and follows this by explaining the reliability assessment that aims to reduce the subjectivity in the process of categorization.

3.3.5.1 The approach for categorization: bottom-up

Instead of using pre-defined categories, this study adopts a bottom-up approach that

treats each CS as something fresh and individual. In other words, the code-switches are not manipulated to fit into the pre-defined categories. Rather, the categories are developed to describe every CS and adjusted to fit the corpus. Following this approach, all the switches are collected and examined individually. This study groups the CSs with the same function among the four participating teachers' utterances. A list of categories for CS functions is then generated.

Mueller (2005) adopts a similar approach in her study for investigating discourse markers. She also treats each discourse marker as something new and individual. Following Tognini-Bonelli (2001:84), she believes that each category that stems from her corpus 'takes precedence over theoretical construction' (Mueller, 2005:26). However I shall argue that it is difficult to provide evidence that the categorization is new and not influenced by the literature, including theories and previous studies. In the present study, although the switches are not adjusted to fit into the pre-defined categories, the categorization of this study is, to some extent, influenced by the previous empirical studies that examined the functions of CS. The present study also adopts some categories of the functions that were found in the literature because they fit the corpus. In short, the categories of functions in this study are developed from the corpus instead of adjusting all the CS in the pre-defined categories. Although I call it a bottom-up approach, it is slightly different from Mueller's (2005) bottom-up approach.

3.3.5.2 Reliability assessment

Although the categorization is developed from the corpus via a bottom-up approach, it may cause subjectivity due solely to the decision to group the CS with the same function and label the categories accordingly. To reduce its possible subjectivity and test its reliability, an assessment was made after the categorization was completed. The reliability assessment co-opted a different rater in addition to the first rater, myself. It aimed to let this second rater assign the selected CS from the corpus to the categories that were developed from this study. The rating result was to be compared with the first rater's result. If their results showed above 70% agreement, the categorization would be recognized as successful. Otherwise, the categories would have to be reviewed by the first rater and the categories and their definitions improved.

To implement the reliability assessment, the second rater, who spoke Mandarin as her native language and English as a foreign language, was invited to join in this activity. She was a female language teacher who had taught EFL in Taiwan for five years and had been teaching MFL (Mandarin as a Foreign Language) in Switzerland for approximately ten years. She also had some knowledge of linguistics

as taught in her Bachelor of Arts course in English literature and linguistics.

The assessment began with a hundred CS, randomly selected. They were presented to the second rater with a definition of each category and an example that had been created for this purpose. The second rater matched the CSs with the categories according to their definition and the examples in them. Due to the second rater's very demanding workload, this process took two weeks to complete. The first result compared to mine achieved 60% agreement. This brought me back to the categories to review and try to adjust them better to fit all the CS in the corpus. When this action was completed, a hundred CSs that paralleled the first assessment were selected. The same procedure was followed to let the second rater match the CSs and their function categories. This time, about 85% of agreement was reached, making this reliability assessment successful. The agreed categories of CSs' functions are presented in the following chapter.

3.3.6 Data analysis for code-switching in teacher-student interactions

In order to investigate the relationship between CS in teacher-student interactions and the pedagogical focus of teaching activities, I used Seedhouse's (2004) framework of pedagogical focuses in L2 classrooms. It includes four kinds of pedagogical focus: 'form and accuracy contexts', 'meaning and fluency contexts', 'procedural contexts' and 'task-oriented contexts'. Form and accuracy contexts focus on linguistic form and accuracy. In this type of context, turn-taking and sequence are strictly controlled by the teacher. Their pedagogical purpose lets teachers evaluate learners' L2 linguistic production. Meaning and fluency contexts aim to maximize classroom interaction and maximize the learning potential of classroom interaction. The main focus is on fluency rather than accuracy. The learners are encouraged to express their emotions and therefore they have more freedom in classroom talk. A teacher, in procedural contexts, aims to instruct or establish a procedure for work. In this case, typically there is no turn taking because the teacher delivers a monologue and learners keep silent until it is finished. Students play the main role in task-oriented contexts where they communicate with their peers in order to complete the assigned tasks. The teacher normally leaves the interaction after giving the instructions for the task. Because this study is interested in teacher-student interactions only, the current analysis excludes 'task-oriented contexts'.

After grouping the teaching activities by their pedagogical focus, CS in NS teachers' and NNS teachers' utterances are compared from the standpoint of their use of CS in various pedagogy-focused contexts. This analysis provides an examination of CS in teacher-student interactions.

3.3.7 Data analysis for *OK*

Many instances of *OK* are found in the participating teachers' utterances. To study the role of *OK* in classroom communication, I first categorize *OK* by its functions. The approach is similar to the one used for categorizing the functions of CS. The categories are developed by the bottom-up approach and further tested for reliability.

3.3.7.1 The approach to categorization: bottom-up

Similar to the categorization for CS, this study treats each *OK* as new and individual. It uses a few of the categories from the literature when the function of *OK* in the corpus has the same property as the function in the previous studies had. At the same time, it also generates new categories that were not found in the literature.

3.3.7.2 Reliability assessment

When a list of categories was completed, it was sent to a fresh rater, who was asked to allocate all the *OK*s in the categories that were generated from the first rating. The idea was to adjust the categories if the discrepancy between the first and second ratings was more than 30%. The second rater was an English linguistics professor competent in both English and Mandarin. Comparing the two ratings, it was found that 33 out of the 286 *OK*s were allocated in different categories. The discrepancy rate was 11%. This indicates that the agreement between the two raters was above 70%, which was the threshold for the categorization assessment. However, the two raters agreed to further investigate the discrepancy and tried to improve their categorization although it had already met the 70% agreement. In this case, the two raters discussed these 33 identical items and revised the categories slightly in order to fit them better. Through this process, the categorization for all 286 *OK*s in this study was confirmed. This approach helped to reduce the subjective judgment of rating by a single person.

3.4 Quantitative Result: teacher talking time vs. student talking time

By giving the length of their talking time, Table 3.3 shows both the teachers talking time (TTT) and the students talking time (STT) in class according to its length and percentage. Apart from Teacher B, all the teachers dominate the classroom talk. Teacher A's talk occupies 88.5% of the total talking time. Both NNS teachers take most of the speaking time. TTT occupies 91.8% of the available talking time in Teacher C's class and 95.5% in Teacher D's class. While the STT remains significantly lower than the TTT in Teacher A's, Teacher C's and Teacher D's classes, the STT in

Teacher B's class is slightly higher than the TTT. This is because the students have more freedom to initiate a topic, whereas the topics are strictly controlled by the teachers in the other observed classrooms.

Table 3.3 The amount of teacher talking time and student talking time

Classroom	Length of lesson (min/s)	Length of teacher talking time (min/s)	Total teacher talking time (%)	Length of student talking time (min/s)	Total student talking time (%)
Teacher A's class	45'33"	40'18"	88.5%	5'15"	11.5%
Teacher B's class	46'50"	21'46"	46.5%	25'04"	53.5%
Teacher C's class	46'45"	42'55"	91.8%	3'50"	8.2%
Teacher D's class	45'01"	42'59"	95.5%	2'02"	4.5%

A range of earlier research found that TTT predominates in the classroom (for example, Bellack et al, 1966; Dunkin & Biddle, 1974), and so does more recent research (for example, Chang 2005; Todd, 2005). Relatively large amounts of TTT lead to problems, in language classrooms in particular, and therefore minimizing TTT and maximizing STT are especially encouraged (for instance, by Gower et al, 1995; Scrivener, 1994). When the literature focuses on the quantity of TTT and STT, Walsh (2002) reminds us that the quality of TTT is more important. He warns teachers that they should pay attention to their language use for various teaching purposes. It may be too simplistic and unrealistic to request teachers only to reduce their talking time and to increase learners' talking time. Walsh (2002) points out, however, that it is also true that learners have less speaking time when teachers have more. In this case, the teachers, language teachers in particular, should reflect not only on whether they offer a good quality of language use but also on how much of the available talking time they themselves use.

In the book that they edited, Barnard and McLellan (2013) provide quantitative and qualitative perspectives on teachers' language use in English-medium classes across Asian countries, including Taiwan, China, Korea, Japan, Vietnam, Indonesia,

Brunei, Malaysia, Singapore, the Philippines and so on. Their book collects a series of small-scale case studies from these countries and presents teachers' language distribution in the English classrooms where English is the learners' L2 (as a foreign language) in many places. Apart from the frequencies of L1 (learners' L1) and L2 (English) in teachers' utterances, TTT is also measured. The results show that these teachers still retain a controlling role in classroom communication. For example, the participating teacher in Taiwan occupies 70%-80% of total talk in the three observed classes (Tien, 2013). The 2 teachers in a university in Beijing, China also monopolize a high proportion of the talk (73.4% and 79.2%) (Tian, 2013). A similar result is found in 4 classes in Japan (Humphries, 2013) and in a Thai university where the teacher occupies over 70% of the total talk (Tayjasanant, 2013). These case studies in Asia involve NS teachers as well as NNS teachers. Although they do not intend to generalize about the English classrooms in Asia due to their limited data, the classes observed in the present study do not find a significantly different length of talk between the NS teachers and the NNS teachers.

Echoing the previous research, the present study finds that teachers dominate the classroom talk in all the observed classrooms, apart from Teacher B's classroom. Although Teacher B is an NS teacher, his students talk more than those in the other classes because Teacher B controls the topics less than the other teachers. Therefore whether the teacher is native speaking or non-native speaking does not seem to influence the length of their speech in this study.

3.5 Quantitative Result: Language choices in teacher-student interactions

This section provides a quantitative result of teachers' and students' language choices between L1 and L2. It first examines the overall distribution of L1 and L2 in teachers' and students' interactions. Their language choices in adjacent interactions is presented and discussed next.

3.5.1 Language choices in overall interactions

What is the relationship between teachers' language choices and students' language choices? Table 3.4 presents the proportions of a teacher's and his/her students' of L1 and L2 use in the classroom. In the NS teachers' classes, Teacher A predominantly uses L2 (English) and similar language choices are reflected in the amount of L2 used by his students. In other words, the quantity of L1 and L2 used by Teacher A and his students is consistent. A similar result is found in Teacher C's and Teacher D's classrooms. They both use significantly more L1 than L2 and so do their students. However, the students in Teacher B's class use more L2 than L1, but the discrepancy

is not as clear as their teacher's utterances. In other words, the data indicate, in this study, that teachers' comprehensive L2 input may not guarantee the students' frequent L2 output, taking the example of Teacher B's class. However, teachers' frequent use of L1, as exemplified by Teacher C and Teacher D, seems to accompany frequent L1 output in their students.

Table 3.4 Measures of interaction obtained by using a 5-second sampling technique

Classroom	Length of lesson in minutes	Teacher talk in L1 (%)	Teacher talk in L2 (%)	Student talk in L1 (%)	Student talk in L2 (%)
Teacher A's class	45.55	2.83	85.67	2.16	9.34
Teacher B's class	46.83	1.67	44.83	25.95	27.55
Teacher C's class	46.75	78.95	12.85	7.32	0.88
Teacher D's class	45.01	92.16	3.34	4.38	0.12
Mean	46.03	43.90	36.67	9.95	9.47
SD	0.90	48.40	37.17	10.87	12.76

Unlike the present study, previous studies have discussed separately the teachers' and students' language choices. Most of them measure the frequencies of teachers' L1 and L2 utterances while very few are interested in the students' frequencies. Duff and Polio (1990) studied 13 language classrooms in UCLA (University of California, Los Angeles), U.S.A and found that the TL used by 6 of the observed teachers occupied only 10% to 58% of their talk, but that 7 of the teachers used a great deal more TL (79%-100%). Liu et al. (2004) found a very similar result in examining the percentage of teachers' use of TL in South Korean high schools. They calculated that L1 use ranged between 10% and 90% of the teachers' talk. More recent studies also provide evidence that both NS teachers and NNS teachers distribution of L1 and L2 is varied. For example, the amount of L1 and L2 used by the same NNS teacher in Tien's study (2013) fluctuates (93.8%, 85.5% and 69.2% of L2) in three observed classes. The two NNS teachers in Tian's (2013) study both use a significantly higher percentage of L2 (90.5% and 88.9%) than L1. In the Japanese EFL classrooms, the two NNS teachers use little L2 (28% and 10%) in their classes. In Thyjasanant's (2013) observations, both of the participating NS teachers of English

include varied and low rates of L2 utterances (19.7% and 67.3%).

Few studies investigate learners' language choices. Among these studies, some reveal learners' perceptions, from both an SLA and a sociolinguistic perspective (see Rolin-Ianziti & Varshney, 2008, for detail) by means of either interviews or questionnaires. However, the real amount of students' L1 and L2 use is not identified. Yet Macaro (2001), when he looked into his observed classroom discourse for the relationship between the language choices of teachers and learners concluded that there was no significant correlation between them because his data show no consistency between a high percentage of TL use by teachers and the percentage of it in learners' output. The present study echoes Macaro's finding that a high volume of teachers' L2 input does not necessarily accompany a large L2 output from the students. At the same time, however, this study adds that students' low L2 output does accompany teachers' low L2 input.

3.5.2 Language choices in adjacent interactions

In a natural context, language choices may depend on the interlocutors. Interlocutor sensitivity is often defined as a speaker, especially bilingual child use more language A with an interlocutor who speaks language A and use more language B with an interlocutor who speaks language B (e.g. Grenesee et al., 1995; Paradis & Nicoladis, 2007). This means that, to facilitate communication, a speaker may alter (or not) his/her language(s) considering the interlocutor's background (e.g. linguistic comprehension and cultural background). Therefore the influence of language choices should be two-way and not one-way. Does this also apply in an L2 classroom even when the classroom context may be seen as unnatural for conversation? Üstünel (2004) and Chang (2009) note in their studies that teachers' language use affect students' language choices although the role of students is viewed as relatively passive. Üstünel (2004) in her unpublished dissertation suggests that a teacher could 'initiate' and 'induce' students' language alternation between L1 and L2. Chang (2009) in her dissertation also finds that teachers' utterances actually lead students to respond in one language or the other. When the above studies suggest that teachers' language choice and use may result in students' language choice, what does this study find? In addition, does students' language choice influence the teacher's choice? Before looking into these questions, we have to bear in mind that a natural context is less complicated than a classroom context, where a teacher is generally more powerful and dominant than the students. Apart from a bias in terms of social status in class, the participants in a classroom are trying not only to fulfil the same communicative purpose but also to hit the teaching/learning targets.

Below is a quantitative analysis for the above two questions. The four tables

below (Tables 3.5 to 3.8) focus on verbal interactions between teachers and students. In other words, all the adjacent interactions for this analysis exclude the interactions where (1) teachers/students gain no response from the other, (2) students verbally interact with the other students, or (3) a response is formed by an action (e.g. a student's raised hand, or facial expression). Table 3.5 presents the raw frequencies of language choices in teacher-student interactions (teacher's utterance followed by students') and Table 3.6 provides the normalized frequencies shown in percentages. Table 3.7 shows the raw frequencies of language choices in student-teacher interactions (student's utterance followed by teacher's) and Table 3.8 presents them in percentages.

Table 3.5 Raw frequencies of language choices in adjacent teacher-student interactions

	Teacher A's class			Teacher B's class			Teacher C's class			Teacher D's class		
initiator / follower	T's L1	T's L2	T's CS	T's L1	T's L2	T's CS	T's L1	T's L2	T's CS	T's L1	T's L2	T's CS
S's L1	0	13	5	2	12	3	50	4	41	88	0	3
S's L2	1	173	2	1	54	2	5	5	14	3	0	2
S's CS	0	5	1	0	5	0	5	1	2	1	0	1

Table 3.6 Normalised frequencies of language choices in adjacent teacher-student interactions

	Teacher A's class			Teacher B's class			Teacher C's class			Teacher D's class		
initiator / follower	T's L1	T's L2	T's CS	T's L1	T's L2	T's CS	T's L1	T's L2	T's CS	T's L1	T's L2	T's CS
S's L1	0%	7%	3%	3%	15%	4%	**39%**	3%	32%	**90%**	0%	3%
S's L2	1%	**87%**	1%	1%	**68%**	3%	4%	4%	11%	3%	0%	2%
S's CS	0%	3%	1%	0%	6%	0%	4%	1%	2%	1%	0%	1%

Table 3.7 Raw frequencies of language choices in adjacent student-teacher interactions

	Teacher A's class			Teacher B's class			Teacher C's class			Teacher D's class		
initiator / follower	S's L1	S's L2	S's CS	S's L1	S's L2	S's CS	S's L1	S's L2	S's CS	S's L1	S's L2	S's CS
T's L1	2	0	0	0	0	2	66	7	0	59	2	2
T's L2	8	148	4	18	43	4	6	11	2	0	0	0
T's CS	6	4	2	3	0	1	13	6	7	2	0	0

Table 3.8 Normalised frequencies of language choices in adjacent student-teacher interactions

	Teacher A's class			Teacher B's class			Teacher C's class			Teacher D's class		
initiator / follower	S's L1	S's L2	S's CS	S's L1	S's L2	S's CS	S's L1	S's L2	S's CS	S's L1	S's L2	S's CS
T's L1	1%	0%	0%	0%	0%	3%	**56%**	6%	0%	**91%**	3%	3%
T's L2	5%	**85%**	2%	25%	**61%**	6%	5%	9%	2%	0%	0%	0%
T's CS	3%	2%	1%	4%	0%	1%	11%	5%	6%	3%	0%	0%

3.5.2.1 Consistent dominant language choices in the adjacent interactions

In general, teachers' and students' dominant language choices show consistency in the adjacent interactions, no matter who initiates them. In most of the teacher-student interactions, the teachers' dominant language choice is followed by the same students' choice. L2, English is NS teachers' dominant language in class. That Teacher A's L2 utterances are followed by his students' L2 utterances occupies 87% of all the interactions. 68% out of the total of interactions is formed by Teacher B's L2 utterances followed by his students' L2 utterances. Similarly the NNS teachers' L1 utterances that is their dominant language are followed by their students' L1 utterances in 39% of the overall interactions in Teacher C's classroom and 90% in Teacher D's classroom.

A similarity shows in the student-teacher interactions which are initiated by students. Teachers' L2 following students' L2 occurs 85% of all the interactions in Teacher A's classroom and 61% in Teacher B's classroom. In the NNS teachers' classes, Teacher C's and Teacher D's L1 utterances following their students' L1 utterances appear in 56% and 91% of the overall interactions respectively. In short, in the NS teachers' classes, students follow their teachers' L2 utterances and teachers also

follow their students' utterances in L2. In the NNS teachers' classes, students follow their teachers' L1 utterances and similarly teachers also follow their students' L1 utterances. Therefore teachers' and students' dominant language choices are mutually relevant.

3.5.2.2 NS teachers' maximal L2 input

It is also interesting to note from the statistics that the NS teachers (Teacher A and Teacher B) in most cases, still speak L2 after students' L1 utterances. Table 3.8 shows the percentage of NS teachers' L2 following students' L1. This applies particularly strongly to Teacher B's class; he never switches to L1 after his students' L1 utterances. This shows interlocutor sensitivity may be one of the reasons that make a teacher to choose one language or the other in a classroom. There could be other reasons, for example various teaching/learning targets, teaching approaches, language policy and so on. Practicing 'L2-only' policy, NNS teachers, especially Teacher B tend to speak L2 after his students' L1 utterances. Chapter 5 gives more details in the qualitative analysis in order to investigate why NS teachers speak L2 most of the talking time and what it brings to the interactions, in addition to the above tables provide quantitative results which show NS teachers' maximal L2 input,

3.6 Summary

To examine the role of CS and the use of *OK* in this study, two NS and two NNS speaking teachers' classes are selected. One of the NS teachers and one of the NNS teachers share one of the groups of students. The same arrangement applies to the other group of students, the other NS teacher, and the other NNS teacher. One session of each teacher was video recorded for transcription. A post-observation interview was conducted after each recording for data analysis. Both quantitative and qualitative analyses were applied in order to answer the research questions. The approach for each research question is also elaborated in this chapter.

After identifying the methodology for this study, this chapter continues by presenting 2 quantitative results. The first is the distribution of TTT (teacher talking time) and STT (student talking time). They are found consistent in the NNS teachers' classes where the teacher controls most of the speaking time and the topics. Therefore they occupy more than 90% of the total speaking time. The result in the NS teachers' classes is different. One of them, Teacher A, like the NNS teachers, occupies most of the speaking time and controls the speaking turns and topics. Teacher B, the other NS teacher, utters less than his students and lets them have more freedom to initiate topics and take speaking turns. The difference between TTT and STT is caused

by the different designs of the classroom activities. This study, at the same time, endorses the students' passive role in classroom interactions (Bellack et al, 1966; Dunkin & Biddle, 1974; Chang 2004; Todd, 2005).

The quantity of language choices in interactions is also presented in this chapter. The overview of the language choices shows that NS teachers mainly speak the learners' L2 (English) while the NNS teachers mainly speak learners' L1 (Mandarin). The quantity of the teachers' language choices is consistent with that of the students' language choices. The same group of students uses more L2 in the NS teacher's class while they speak more L1 in the NNS teachers' class. The same result is found in both groups of students. Looking at the adjacent interactions between teacher and students, it notes that students follow their teachers' language choices. It also notes that teachers tend to follow their students' language choices as well, but do not always do so. Bearing in mind the limited data resources in this study, it suggests that in adjacent interactions teachers' language choices and students' language choices are mutually relevant.

Chapter 4 Linguistic Structures and Pragmatic Functions of Code-switching

4.0 Preliminaries

Code-switching (CS) in the past was viewed as a case of a bilingual failing to be competent in one language or the other. It was believed that when a bilingual comprehended both of the languages well, CS was not expected. Therefore a bilingual, an individual who has native-like control of two or more languages, is called a 'balanced bilingual', 'true bilingual' or 'symmetrical bilingual' (Bullock & Toribio, 2009:7). However, later research had admitted that a bilingual may not be equally competent in his/her two languages. One language may predominate, but this does not change the fact that the bilingual speaks both languages fluently. It has led to the realization that 'CS, then, is not indicative either of a bilingual's inability to separate his language or of a lack of proficiency. Rather it is an additional communication resource available to bilinguals' (Bullock & Toribio, 2009:8). Therefore it is believed that CS happens naturally to bilinguals or multilinguals. In addition, CS does not take place randomly but rather systematically (for example, Myers-Scotton, 1993; Muysken, 2000; Poplack, 1980). Whilst the linguistic structures of CS have been widely studied in natural talk, when they occur in L2 classroom talk has not been widely researched. To help fill this gap, the first half of the present chapter investigates the linguistic structures of teachers' CS from the perspective of quantitative analysis that focuses on which structure is preferred by NS and NNS teachers and which syntactic class of CS is uttered most often. It also compares it with the features of natural talk that take place outside the classroom. In addition to this quantitative view of CS' linguistic structures, descriptive analysis follows looking into CS in NS and NNS teachers' utterances and giving instances. This part aims to provide an initial view of the linguistic roles of CS in L2 classrooms.

The second half of this chapter discusses the functions of CS in L2 classrooms. This topic has already attracted a big volume of studies which commonly indicate that CS is used to reach teaching or learning targets. Therefore CS normally serves a function. Although many studies have discussed it, they do not seem to adopt a systematic method of categorization. They either use pre-defined categories which were generated from earlier research or present a list of functions without considering the possible subjectivity in the process of categorization. To remedy this, the present study looks closely at each CS, taking a bottom-up approach. A reliability assessment is then made with the categories examined by 2 raters. Each function of CS is presented with an instance after the categorization has been confirmed by both of the raters. The chapter goes on to discuss the similarities and differences between the functions of CS for the NS and NNS teachers

4.1 Linguistic structures of teachers' CS: quantitative analysis

The first quantitative result shows the distribution of the types of CS used by NS and NNS teachers. Table 4.1 illustrates this distribution. The first point to note is that NNS teachers include more CS in their utterances than NS teachers. In their utterances Teacher A shows 43 instances of CS, Teacher B shows 11, Teacher C has 228 instances of CS and Teacher D has 140. The second noteworthy point is that intra-sentential CS appears much more frequently than inter-sentential CS in both the NS teachers' and the NNS teachers' utterances. The four teachers exhibit intra-sentential CS, ranging from 35% to 95% of all their switches. This result is found in contradiction to that of Liu (2003), who concludes that the four NNS teachers (all native speakers of Mandarin) participating in her study had much more inter-sentential CS (80.4% of all switches) than intra-sentential CS (19.6% of all switches). A similar result was found in another study (Qian et al, 2009) which surveyed NNS teachers who were at the same time all native Mandarin speakers. The number of inter-sentential CS (82%) in the NNS teachers' speech was much higher than that of their intra-sentential CS (16%) and tag switches (2%). Although the results in the two studies above are different from the result of the present study, the latter is in fact in line with Iqbal's (2011), where the 14 lecturers in six universities were found to have more intra-sentential than inter-sentential CS. Tag switches commonly occupy only a small proportion of the NS and NNS teachers' utterances, apart from NNS Teacher C who includes a great volume of code-switching *OK* in her utterances. This finding also echoes the study conducted by Tayjasanant (2014), which finds that tag switches form a majority in the utterances of two participating university teachers, one a Thai native speaker and the other an NS of English. However, the frequency of tag switches and Thai linguistic structures is relevant. The number of tag switches was boosted because the teachers attached Thai particles to their English utterances.

Table 4.1 Linguistic types of CS in the speech of NNS and NS teachers

	NS teachers				NNS teachers			
	Teacher A		Teacher B		Teacher C		Teacher D	
	N	%	N	%	N	%	N	%
Inter-sentential CS	4	9%	2	18%	11	5%	5	4%
Intra-sentential CS	36	**84%**	9	**82%**	80	35%	123	**88%**
Tag Switches	3	7%	0	0%	137	**60%**	12	8%
Total utterances	43	100%	11	100%	228	100%	140	100%

Based on the fact that Intra-sentential CS is the major type of CS in this study for both the NS and NNS teachers, further analysis took place to examine the intra-sentential CS more closely. For this purpose, the teachers' clauses that included intra-sentential CS were divided into those that belonged to ML (matrix language) and those that belonged to EL (embedded language). When a clause uses the L1 as the ML and the L2 as the EL, it is labeled 'ML: L1', as a clause which is grammatically structured in the L1. Conversely, when a clause uses the L2 as the ML and the L1 as the EL, it is labeled 'ML: L2' because the clause is grammatically structured in the L2. When a clause can be grammatically structured in either L1 or L2, it is labeled 'ML: L1/L2'. In this case, neither language predominates over the other. Following this system, the structure of intra-sentential CS for each participating teacher is presented in Table 4.2. Reflecting their native languages, most of the NS teachers' intra-sentential CS is structured with the L2 as the ML and the L1 as the EL, while the NNS teachers' intra-sentential CS is structured with the L1 as the ML and the L2 as the EL.

Table 4.2 The distribution of the three types of intra-sentential CS

	NS teachers				NNS teachers			
	Teacher A		Teacher B		Teacher C		Teacher D	
	N	%	N	%	N	%	N	%
ML: L1 (Mandarin)	4	11%	1	11%	72	**90%**	108	**88%**
ML: L2 (English)	29	**81%**	6	**67%**	5	6%	2	2%
ML: L1/L2 (Mandarin/English)	3	8%	2	22%	3	4%	13	10%
Total utterances	36	100%	9	100%	80	100%	123	100%

The linguistic properties of the NS and NNS teachers' CS are also investigated and presented in Table 4.3. Although NS and NNS teachers' language choices for ML and EL are different, the linguistic categories of the switched items are consistent. No matter whether the teachers switch from L1 to L2 or from L2 to L1, the most often switched items in the list are 'nouns' and the second most frequent are 'verbs'. This finding is in line with Poplack's (1980) result which was generated from 1,835 code-switches in sixty-six hours of tape-recorded interviews and a 'natural' setting. She examines the CS between English and Spanish and finds that single nouns form the most frequently switched category. Nakamura (2005) echoes this in her study

which observed a bilingual boy (in English and Japanese) in spontaneous naturalistic conversation. The recording, in various venues, for example, kitchen and bedroom extends over 12 hours with different interlocutors, including his mother, his father and a friend of his who also bilingually speaks English and Japanese. The first conversation was collected when he was 8 years old and the last conversation was 11 months later. Nakamura selected and studied 2 conversations between the boy and his mother. Each conversation lasted 30 minutes. As one of the points of interest in this study, she investigates the syntactic categories of the intra-sentential CS in the boy's talk and notes that a significant majority consists of nouns and noun phrases. Verbs are the second most frequent items in the list but the number of them is much smaller than that of the nouns/noun phrases. Although the studies of Poplack (1980) and Nakamura (2005) were in a natural setting while the present study collects CS from a 'less natural' place, a classroom, nouns and verbs are most frequently used in the observed classrooms here also.

Table 4.3 The linguistic properties of CS in NS and NNS teachers' utterances

Linguistic Categories	NS teachers	NNS teachers
Noun	**55.0%**	**39.6%**
Verb	**20.0%**	**20.3%**
Adjective	12.5%	11.8%
Verb + Object	10.0%	2.1%
Conjunction	0.0%	10.7%
Phrasal Verb	0.0%	4.3%
Preposition	0.0%	0.5%
Question pronoun	0.0%	3.2%
Adverb	2.5%	7.5%
Total	100%	100%

4.2 Linguistic structures of teachers' CS: descriptive analysis

This section provides more details on the linguistic structures of teachers' CS. It investigates the intra-sentential CS of NS and NNS teachers separately. Discussion of the intra-sentential CS and tag switches then follows.

4.2.1 NS and NNS teachers' intra-sentential CS

All the participating NS and NNS teachers use intra-sentential CS more than any other

kind in their utterances, as illustrated in Table 4.2. This section analyses their intra-sentential CS with detailed descriptions.

4.2.1.1 NS teachers' ML: L2

Table 4.3 illustrates that NS teachers keep most of their intra-sentential CS within the clauses which are structured by L2 as the ML. In other words, when they code-switch, they insert words or phrases of L1 which do not violate the grammatical structures of the target language. Their L1 insertions come mainly from two sources. The first is teachers' repetitions of a student's L1 response. For example, in Extract 4.1, the student responded to teachers' question and said 'sifenzhiyi' (a quarter). The teacher in the following turn repeated the student's response and followed this by commenting on it in L2. He then switched again to 'sifenzhiyi' (a quarter) again to confirm it as a correct answer. L1 insertions in a clause also work to highlight certain information in order to make an interaction better. This insertion is often a verb which gives students a clear request, showing what they are expected to do. An example is shown in Extract 4.2. In this utterance, the teacher expected the student to explain why it was the right answer. He switched to L1 for 'jieshi' (explain) which highlighted his request to the students who were expected to explain the reason.

Extract 4.1

S: ***Sifenzhiyi***.

"A quarter"

T: ***Sifenzhiyi***, very good, it's ***sifenzhiyi***, OK, so we have…

"A quarter" "a quarter"

(NS_A_117-118)

Extract 4.2

T: …OK, alright, so, someone someone... Now they say a quarter to four. Why is the

four? Someone ***jieshi*** for me why is it a quarter to four, why why why why?

"explain"

(NS_A_330-332)

4.2.1.2 NS teachers' ML: L1

The NS teachers show only 5 intra-sentential CS conducted in L1 as ML. Of all five, the insertions in L2 are all nouns. This type of CS mainly works to lighten students' cognitive loads. An example is shown in Extract 4.3. The teacher tried to help his

student get the right answer. Therefore he gave his student a hint, 'It's already six' and followed this by translating it, saying '*yijing* six *le*, *duibudui*?' (It's already six, right?). 'Six' is an English insertion in a Mandarin (L1) structure. It aims to make sure the student has understood his 'hint' and can give the expected answer to his question.

Extract 4.3

(b) T: All right. OK, so, it's six fifteen and you said it's quarter to six. It's already six.

yijing six ***le***, ***dui*** ***bu dui****?*

already right not right

"It's already six, right?"

(NS_A_748-749)

4.2.1.3 NS and NNS teachers' ML: L1/L2

All the participating teachers in this study use CS which occurs in a matrix language, which could be L1 or L2. In other words, the main structure is A-B in the same clause. A refers to one language and B refers to the other language. This type of CS occurs only when the teachers translate from one language to the other. In Extract 4.4, the teacher tried to help a student with the term in L2. Therefore he repeated the student's L1 answer 'tang toufa' (a perm) and followed it by translating it into L2. The structure, A (L1)-B (L2), keeps both structures, of L1 and L2.

Extract 4.4

S: ***Tang toufa.***

"A perm."

T: ***Tang toufa***, you got a perm.

"A perm"

S: Yeah.

(NS_B_56-58)

4.2.1.4 NNS teachers' ML: L1

Both NNS teachers include a great volume of L2 insertions within a clause grammatically structured in L1. These L2 insertions are mainly applied to their translation approach, which is structured as 'L2 term + L1 translation'. An L2 insertion is normally a word, a phrase or a sentence. Since the translation approach is often used by both NNS teachers, this type of intra-sentential CS is prominent in their utterances. The teacher in Extract 4.5 tried to translate a sentence into L1 and

highlighted the L2 word ‘distinguish’, which is followed by its translation. Therefore this L2 word becomes an insertion in this L1 clause. The next example is shown in Extract 4.6, where the teacher brought up the L2 term ‘came along’ and further requested her students to underline this phrase and provide its translation in L1. Similarly the teacher switched to L2 for an important phrase which she thought her students needed to have translated. The request to ‘underline’ by the teacher also shows the importance of this new phrase for the students.

Extract 4.5
T: ***Ye keyi lai*** distinguish ***lai qubie***.
also can distinguish
“It can also distinguish distinguish.”
(NNS_D_509)

Extract 4.6
T: …Came along, ***huaxian, chuxian***...
underline came along
“Came along, underline, came along.”
(NNS_D_520)

4.2.1.5 NNS teachers’ ML: L2
Similar to the NS teachers’ L1 insertion in a clause structured in L2, the NNS teachers also switch to L1 to highlight the request to the students, although this type of CS occupies a very small proportion of their utterances. For example, the teacher in Extract 4.7 read the text in L2 and switched to L1 to ask her students to translate ‘dominate’ into Mandarin. In this case, ‘shenme jiao’ (what is?) in L1 sent a message to the students that they should translate. Therefore this L1 insertion works to highlight a request.

Extract 4.7
T: …That would quickly dominate ***shenme jiao*** dominate?...
what call
“That would quickly dominate what is dominate?”
(NNS_C_231-232)

4.2.2 NS and NNS teachers’ inter-sentential CS
Unlike Liu’s study, this one shows inter-sentential CS occurring much less often than

intra-sentential CS. In a limited number of inter-sentential CS, it occurs on three occasions. First, it is used to clarify the previous sentence. Therefore it is generally a switch from the learners' L2 to L1. An example is shown in Extract 4.8. However this is the only instance of it in the utterances of the four participants. It should be noted that CS for clarification mostly takes place within a clause boundary. Second, NS teachers switch from L1 to L2 between two clauses when they repeat a student's response in L1 and follow by commenting on it in L2. An example is presented in Extract 4.9. The teacher in line 3 repeated the response 'jiexici' (preposition) and then confirmed that this was the right answer by saying 'you got it'. The third occasion for intra-sentential CS occurs only in Teacher C's class. She often switches from Mandarin (L1) to English (L2) when she tries to start a casual conversation in addition to focusing on the reading material. Although this type of CS 'carries more social messages' (Qian et al, 2009), as found in Qian et al.'s (2009) study, Teacher C switches to L2 for social messages while the teachers in Qian et al.'s (2009) study tend to switch to the learners' L1 for the same function. Teacher C in this study seems to use L2 to chat with students in order to encourage interactions with them, which interestingly, is not a type found in the literature. An example is presented in Extract 4.10 where the teacher switched to L2 in the second half of line 2 to mention that she had bought an MP three for her son. It successfully encouraged a student to respond and extended the topic.

Extract 4.8

T:…Where did I…stop last week? ***Wo shangci shang dao nali ya***?

(NNS_C_8-9)

Extract 4.9

1. T: …What's my P-R-E-P? ((PREP REFERS TO PREPOSITION))
2. Sx: ***Jiexici***.
   "preposition"
3. T: ***Jiexici***. You got it. Which ***Jiexici***? Class will begin bah ((A SOUND
   "preposition" "preposition"
   SHOWS THAT THE WORD IS MISSING HERE)) ten minutes.

(NS_A_463-465)

Extract 4.10

1. T: …***Ranhou shuo ta hen jiandan qu zeme yang***? ***Qu shiyong***. OK. Do you know
   Then say it very simple to what to use
   "Then it says what to do it simply? To use."

2. the first MP three when they first inventions I bought it for my son. Do you
3. know [what]
4. S5: [MP three]?
5. T: Yeah, do you know how much that it..did it cost?

(NNS_C_334-338)

4.2.3 NNS teacher's tag switches

Tag switches are found in NS and NNS teachers' utterances. Apart from the most frequent tag switch *OK* (details are presented in Chapter 6), the L1 term, 'shenme' is also found in many instances. Although it contains the meaning 'what', it does not function as the same sort of question pronoun as 'what' but it acts as a pause instead. This makes it clear that if it were removed from an utterance, neither the meaning nor the structure would be affected. In Extract 4.11(a), an instance from Teacher D, if 'shenme' were taken out, the utterance would become 'Not at all'; neither the meaning nor the structure is changed. Similarly 'shenme' in instance (b) can be taken out without violating either the meaning or the structure of the sentence. It carries no semantic or grammatical function but acts as a pause before the completion of an L2 utterance.

Extract 4.11

(a) T: …Not ***shenme***? at all…
(NNS_D_255)

(b) T: …Mini disc player which at the ...at the ***shenme****?* At the time was the smallest form of music ***shenme****?* storage…
(NNS_C_133-135)

4.3 Functions of teachers' CS: Categories

The agreed categories of the functions by the two raters are hierarchically presented in Figure 4.1. The first level of the categorization examines how closely it relates to pedagogical function. When a CS occurs for a directly pedagogical purpose, it is labeled 'direct pedagogical function' (DPF). However when a CS appears for an indirect pedagogical purpose, it is called an 'indirect pedagogical function' (IPF). At the same level of categorization, 'uncertain' consists of switches whose functions cannot be identified. Under DPF, the subcategories include 'comment and confirmation', 'information provision' and 'clarification'. Under 'clarification', various ways of achieving this purpose include translation by teacher and by student,

providing directions to students and explaining grammar. IPF include two subcategories, 'interpersonal functions' and 'Discourse markers and interjections'.

Figure 4.1 The hierarchy of teachers' CS functions

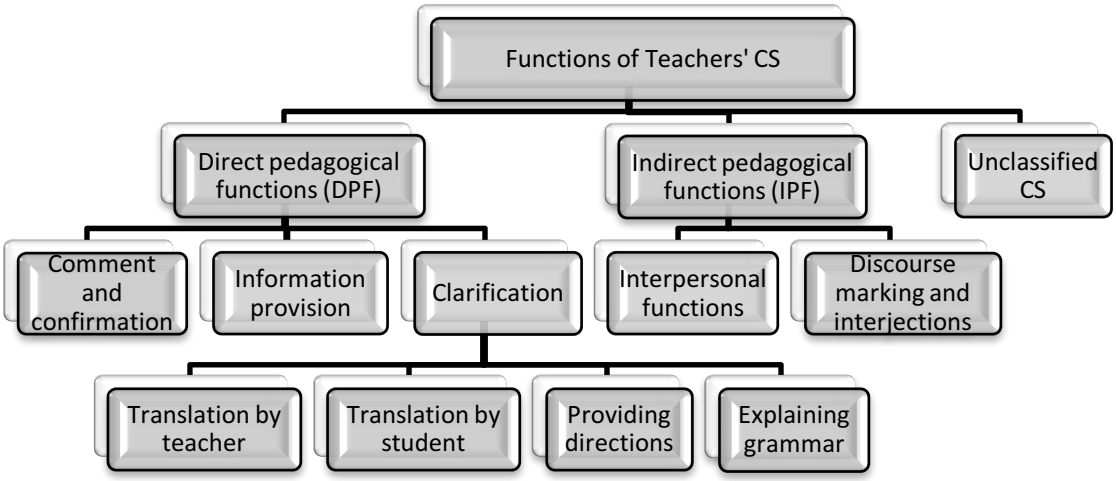


Table 4.4 presents the frequency with which each teacher code-switches for each function. It should first be noted that all the NNS and NS teachers commonly hold most of their CS for DPF. The DPF of the switches by the NS teachers and the NNS teachers ranges from 39% to 91% of the total switches. Among the DPF, the NNS teachers both show significantly higher CS for clarifying the meanings of their utterances (Teacher C: 29%; Teacher D: 65%). This is because the classes of both Teacher C and Teacher D require a high volume of cognitive loads for reading and writing purposes. Therefore the L1 is employed mainly for clarification. But the NS teachers do not have consistent results in DPF. Teacher A uses 42% of his switches for comment and confirmation to his students, while Teacher B employs CS much more rarely for the same function. Similarly, Teacher B deploys relatively many CSs to provide students with information, but Teacher A does not need L1 for the same function. This may be attributed to the fact that the two NNS teachers practice different teaching activities in their classes. It was found that Teacher A had a teacher-centered classroom where the teacher controls and practices traditional 'IRF' (Initiate-Respond-Feedback), while Teacher B allowed students to own more speaking space and the students were freer in terms of speaking topics and turn taking.

Unlike the literature (for example, Flyman-Mattsson & Burenhault, 1999; Liu,

2003; Liu et al., 2004; Nikula, 2007; Rolin-Ianziti & Varshney, 2008; Saito, 2014; Sali, 2014), the present study finds that interpersonal functions do not seem to play a significant role for the 4 participating NS and NNS teachers. It finds only Teacher A switching to L1 for this purpose. CS is also used for discourse marker and interjections, although it must be admitted that only a very restricted number of studies presents the same finding from learners' utterances (Eldridge, 1996; Potowski, 2009). The result shows that all the teachers code-switch for discourse marker and interjections. Teacher C includes a larger volume of discourse markers, *OK* in particular, than all the others. She utters *OK* 106 times as a code-switch. As the last category of functions of CS, Teacher A and Teacher C both exhibit CSs that cannot be classified. The following sections discuss each function of CS in more detail.

Table 4.4 The distribution of the functions to teachers' CS in percentage

		Teacher A		Teacher B		Teacher C		Teacher D	
		N	%	N	%	N	%	N	%
DPF	Clarification	13	30%	3	27%	65	29%	90	65%
	Information provision	4	9%	5	45%	25	11%	34	24%
	Comment and confirmation	18	42%	2	18%	0	0%	0	0%
	Subtotal	***35***	***81%***	***10***	***91%***	***87***	***39%***	***124***	***89%***
IPF	Interpersonal functions	4	9%	0	0%	0	0%	0	0%
	Discourse marker & Interjections	3	7%	1	9%	136	60%	16	11%
	Subtotal	***7***	***16%***	***1***	***9%***	***136***	***60%***	***6***	***11%***
Unclassified CS		1	2%	0	0%	2	1%	0	0%
Total of the above functions		43	100%	11	100%	228	100%	140	100%

4.3.1 Clarification

In line with many previous studies (for example, Copland & Neokleous, 2010; de la Campa & Nassaji, 2009; Edstrom, 2006; Forman, 2012; Greggio & Gil, 2007; Guthrie, 1984; Liu, 2003; Liu et al., 2004; Rezvani & Rasekh, 2011; Rolin-Ianziti & Brownlie, 2002, Rui & Chew, 2013; Sali, 2014), all the participating teachers in this study code-switch in order to clarify their utterances to make sure that their students

properly understand the L2 in a written text or in a verbal interaction. To provide details of this function, this section investigates the following ways for teachers to clarify: (1) translation by teacher (2) translation by student (3) providing directions and (4) explaining grammar. Table 4.5 shows the frequency of each sub-function. Apart from Teacher C, all the participating teachers are highly prone to clarify through their own translations. Teacher B, in particular, clarifies his meaning only by translation. Teacher C, however, in her questions requests her students to say aloud the translation of the desired words. In this regard, she gives many more questions than the other teachers do. The details of each sub-function are presented below.

Table 4.5 The frequencies of the sub-functions of clarification

	Teacher A	Teacher B	Teacher C	Teacher D
Translation by teacher	66.7%	100%	18.6%	81.0%
Translation by student	8.3%	0.0%	45.8%	8.3%
Providing directions	25.0%	0.0%	0.0%	0.0%
Explaining grammar	0.0%	0.0%	35.6%	10.7%
Total	100%	100%	100%	100%

4.3.1.1 Translation by teacher

All the NNS and NS teachers translate from one language to another. Two types of translation are made by the teachers. The first kind of translation is provided adjacent to the L2 term and the second kind of translation is provided later in the same speaking turn. An example of adjacent translation occurs in Extract 4.12 where the translation in L1 is adjacent to the L2 term in the same clause. Extract 4.13 shows the other kind of translation, provided later in the same speaking turn. Teachers' translation normally takes place within the same clause and this forms intra-sentential CS in the majority of such utterances involving translation.

Extract 4.12

T: …Twenty-nine minutes until twelve, OK, ***zai ershijiu fenzhong biancheng*** 12
in twenty-nine minutes become
"It becomes 12 o'clock in 29 minutes."
o'clock…

(NS_A_401-402)

Extract 4.13

T: Alright, Good, a quarter is twenty-five cents. Why is a quarter twenty-five cents?

Why is a quarter..twenty five cents? Why do we call the money, ***jiushi ershi***…
that is
you know… ***ershiwu…*** ***mao***
twenty-five cents
"… Why do we call the money, that is twenty…you know…twenty-five…cents"
(NS_A_133-135)

The frequencies of translation are presented in Table 4.6. It illustrates a common feature for NS and NNS teachers that they use a good deal more translation that is adjacent than translation later in the same speaking turn. Although a range of previous empirical studies also identify that teachers translate to smooth the communicative flow and reduce students' cognitive load, no research has examined the type of translation method. This study remarks that adjacent translation is preferred by both NS and NNS teachers.

Table 4.6 The frequencies of translation by the teacher

	Teacher A	Teacher B	Teacher C	Teacher D
Adjacent translation	87.5%	100%	100%	82.4%
Translation provided later in the same speaking turn	12.5%	0%	0%	17.6%
Total of Translation	100%	100%	100%	100%

4.3.1.2 Translation by student

Requesting students to translate seem to be favored by Teacher C. She tends to lead students to translate a L2 word or phrase by asking them a question, for instance, 'what is amazing?' in Extract 4.14. This question led one of the students to provide the translation of 'amazing'.

Extract 4.14
T: …Amazing at this fills the world. Amazing, ***shenme jiao*** amazing?
what call
"What is amazing?"
(NNS_C_161-162)

4.3.1.3 Providing directions

Although this function is found frequently used by teachers in the literature (Edstrom,

2006; Guthrie, 1984; Kim & Elder, 2008; Liu et al., 2004), it only takes place once in this study, shown in Extract 4.15. Teacher A switched to L1, 'huan ni' (your turn) to ask the student, Winnie, to answer this question. Winnie then successfully completed the request although her answer did not help her to win a seat, as a reward for a correct response.

Extract 4.15

T: Oh, Winnie, ***huan ni***, go!
change you
"your turn"

Winnie: ***Yike*.**
A quarter.

T: ***Yike***. I don't know **yike**, my Chinese is very terrible, no you don't sit.
A quarter. a quarter
((POINTING TO THE OTHER STUDENT)) Go!

(NS_A_113-116)

4.3.1.4 Explaining grammar

Grammar explanation is in the empirical studies one of the main reasons for a teacher to switch to L1 (Crawford, 2004; Edstrom, 2006; Greggio & Gil, 2007; Kim & Elder, 2008; Liu et al., 2004; Polio & Duff, 1994). Although these studies indicate that both the NS and NNS teachers refer to L1 for explaining grammar, the present study finds it only in the NNS teachers' classes. An example is presented in Extract 4.16, where Teacher C tried to identify the lexical category of the word, 'information'.

Extract 4.16

T: ...Information ***ke bu ke shu***?
can not can count
"Is information countable or not?"

S: ***Bu ke shu***.
No can count
"Uncountable."

T: ***Bu ke shu.*** Information ***bu ke shu o.*** OK.
No can count no can count
"Uncountable. Information is uncountable. OK."

(NNS_C_159-161)

4.3.2 Information provision

Echoing the finding of the previous empirical studies (Crawford, 2004; Kim & Elder, 2008; Forman, 2012; Liu et al., 2004, Sali, 2014), this study also finds that L1 is employed by teachers when they provide information to the students. It aims to help students to understand the context in L2. For example, in Extract 4.17, Teacher C tried to explain the image of various colours. When she tried to explain the colour 'blue' for trust, she cited the case of Canada Trust which uses blue as a colour for their image. This peripheral information is used to enhance the students' understanding of the context in their reading material. The participating teachers in the study of Liu et al. (2004) also expressed their preference for giving background information in L1 and believe that this helps students to understand the whole lesson better.

Extract 4.17

T: … ***jiu*** Canada Trust. ***Jianada you ge jiao en***...Canada Trust ***jiushi..jianada xintuo***
It's Canada has a called hmm it is Canada Trust
gongsi jiushi yong…blue ***de Kanban***
company it's using billboard
"…It's Canada Trust. Canada has a so-called hmm...Canada Trust it is Canada Trust a company using blue for presence on a billboard."
(NNS_C_321-322)

CS also takes place when a teacher, an NNS teacher in particular moves on to the new information in the reading material. In such cases, teachers often switched from the previous clause in L1 to the new clause in L2 which is included in the students' materials. In this study it happens in the NNS teachers' classes because they adopt a translation approach that leads them to read the English sentence in the material first and follow it by translating the new words or phrases into Mandarin. They then switch to L2 again for a new sentence in the material and follow this by translation. An example is shown in Extract 4.18. It starts with Teacher C finalizing the translation of a sentence in L1. She moved to a new sentence in L2 'portable CD players', which works to provide a piece of new information from the reading material.

Extract 4.18

T: … ***Xunsu de fazhan daozhi shenme***? Portable CD players. OK, portable,
quick development lead to what
"what does a quick development lead to"

shangci jiangdao, shenme shi portable?
last time mention what is
"As mentioned last time, what is portable?"
(NNS_C_106-107)

4.3.3 Comment and confirmation

This type of CS is used in this study only by NS teachers. An example in Extract 4.19 shows that Teacher A switched to learners' L1 for a compliment, 'name congming' (so clever) to a student. Another example in Extract 4.20 presents Teacher A switching to learners' L1 when he wished to confirm whether the student had said 'you' (right side) in Chinese or 'Yo' in English. Why do NNS teachers switch to the learners' L1 for this function? Hobbs et al. (2010) find in their classroom observations and the interviews with the participating teachers that the NS teachers of Japanese lacked the learners' cultural background to pick up non-verbal cues from the students regarding their level of understanding of teachers' language. This made the NS teachers use more classroom language in learners' L1 than the NNS teachers (Hobbs et al., 2010:55-56).

Extract 4.19
T: OK, alright, Jenny, go.
S1: @@@
S2: Three forty-five.

T: Three forty-five. Oh, so ***name congming***, how do you know?...
"so clever"
(NS_A_327-330)

Extract 4.20
T: Was that Chinese ***you*** or English Yo? ((THEY SOUND THE SAME IN
"right side"
PRONUNCIATION.))
S1: ***Youbian.***
"Right side."
S2: Right.
T: Right…Oh, ***you,*** you are saying ***youbian,*** I see, I see, I see…
"right side" "right side"
(NS_A_851-854)

4.3.4 Interpersonal functions

Interpersonal functions for CS are fully noted in many studies (Flyman-Mattsson & Burenhault, 1999; Liu, 2003; Liu et al., 2004; Nikula, 2007; Rolin-Ianziti & Varshney, 2008; Saito, 2014; Sali, 2014). They play an important role in a classroom because they helps to relax the classroom atmosphere and reduce students' anxiety; 'low anxiety appears to be conducive to second language acquisition, whether measured as personal or classroom anxiety' (Krashen, 1982:30).

This study also finds some interpersonal functions of CS, although this use was found only in Teacher A's class. Extract 4.21 is gathered from an activity where all the students were requested to stand up and earn the right to sit down by calling out the right answers. A student pointed to the floor and said she had found some money. Teacher A said in fun that he could be bribed to give the seat back to the student. When he referred to the amount of money, he switched to L1 'yi kuai qian' (one dollar). This gave the student a direct response and made her laugh.

Extract 4.21

S: XXXX money? ((POINTING TO THE FLOOR))

T: ((PAUSE THE TAPE)) If there is money. Maybe: I did feel an ***yi kuai qian*** on the
"one dollar"
floor so I will be very happy to let you have your seat back.

S: @@@@

(NS_A_46-49)

4.3.5 Discourse marker & interjection

This function is very similar to the 'tag switch' defined by Poplack (1980), although the term 'tag switch' is largely used for studying linguistic features. In order to avoid any possible confusion, it is categorized as 'CS for discourse marker and interjection' with pragmatic functions. Both NS and NNS teachers have either L1 or L2 insertions attached to their utterances in the other language. If this type of insertion were removed from the utterance, it would not change them grammatically or semantically. To investigate these insertions further, they are grouped by their linguistic properties. The first group is used for discourse marker, which is defined in a broader sense as 'small words with little (or no) overt semantic content, often occurring at the beginning of utterances that display connections among utterances as well as between an utterance and its context' (Fasold & Connor-Linton, 2006:500). With this principle, the insertions include 'shenme' and 'honnh' in Mandarin and '*OK*' in English. It should be noted that *OK* appears as the most frequent code-switch in the present study. Chapter 6 of this study, below, presents its role in teachers'

utterances and compares its use by NS and NNS teachers.

Extract 4.22 shows how 'shenme' is attached to Teacher C's utterance in L2. As discussed above in the section on tag switches in 4.3.3, 'shenme' does not refer to its meaning in Mandarin ('what?') but acts like a pause in the process of speaking. Again, if 'shenme' were taken out, the utterance would remain the same in meaning and grammatical structure. The next example in Extract 4.23 shows the other discourse marker in L1, 'honnh'. This word is actually Southern Min[3]. In its linguistic role, it is a final particle attached to an utterance. Although it has no literal meaning, it conveys a very light sense of 'confirmation'. As presented in Chapter 1, this study recognizes Mandarin and Southern Min as L1. Although the second half of the clause in Extract 4.23 is marked as L1, it is actually a mixture of Mandarin, 'xiajiang dao xiajiang de yisi' ('drop to drop means') and Southern Min, 'honnh'. This is one of the common mixtures in Taiwan.

Extract 4.22

T: …Music fans ***shenme*** music fans around the world…were soon attracted to the new ***shenme*** a new music storage system.

(NNS_C_184)

Extract 4.23

T: …dropped well…below ***honnh***, ***xiajiang dao xiajiang de yisi***…

drop to drop means

"…dropped well…below honnh, dropped to…it means dropped…"

(NNS_D_185)

The second group is interjection. Fraser (1900) defines it by stating that 'an interjection is not part of a sentence but is an entirely separate "sentence", an expression (usually but not always a single word) which encodes an entire basic message typically involving the speaker's emotional state.' (Fraser, 1900: 391). Following this definition, only one insertion 'aiyou' in Mandarin is found in the corpus shown in Extract 4.24. Teacher B was trying to find a video clip in the computer and wanted to play it to the students. He continued by saying 'aiyou'; this shows that he was annoyed by not being able to find it. If so, 'aiyou' becomes an interjection that expresses emotion although it has no literal meaning.

[3] 'Southern Min' is commonly known as 'Taiwanese', a language variety in Taiwan. It is the second most widely used linguistic variety in Taiwan, after Mandarin (Lee and Li, 2013:820).

Extract 4.24
T: Where is the video? **Aiyou**.
(NS_B_574)

4.3.6 Unclassified CS

While most of the CSs had a clear function in teachers' utterances, there were three whose functions could not be determined. The first was found in Teacher A's utterance, shown in Extract 4.25. He switched twice in this speaking turn. The first switch takes place before the end of line 2 when Teacher A switched to the learners' L1 in order to clarify the previous clause. The second switch is an intra-sentential CS in line 3 where Teacher A included an L2 insertion in the same clause for clarification. It is difficult, without further information, to work out why Teacher A switched back to L2 for the word 'time'.

Extract 4.25
1. T: OK, so sometimes, if you are listening to the CD ((DOING THE 'LISTENING'
2. ACTION)) and they say oh half past and they don't tell you the time, ***yinggai shi..***
   should be
3. ***ganggang shuo de na ge*** time. It is the last time. Alright, we will see that later in
   just now say that
   "It should be..that time which was just now said."
4. our books.

(NS_A_626-628)

The two remaining instances occur in Teacher C's utterances. The first of these is presented in Extract 4.26 where she was trying to explain 'mini disc player'. She first switched to learners' L1 to explain that it was a very small thing. She followed this by switching back to L2 with an L1 insertion 'jiu' (it is). This intra-sentential CS is not very clear in its function. It does not seem to appear for a pedagogical reason but there are no further details by which to judge it.

Extract 4.26
T: …Mini mini disc player. ***Dui, gengxiao de***, ***jiu xiang shi nimen…you mei you…hen***
   Right, smaller it's like you isn't it very
   xiao hen xiao de..dongxi. OK. **Jiu** mini disc player...
   small very small thing it's
   "Mini mini disc player. Right, smaller, it's like you…isn't it…very small very small thing. OK. It's mini disc player…"

(NNS_C_122-123)

The second instance from Teacher C is shown in Extract 4.27. She switched to L2 in the first line in order to explain the lexical category of a new lexicon item. When she realized she had made a mistake, she switched to L2 to say 'sorry' and then switched to L1 again for the correction. This speaking turn is structured in learners' L1 and the L2 word 'sorry' is inserted within this clause. Although it is assumed that this L2 insertion is Teacher C's individual use, without any pedagogical function, the context does not provide enough information for a confident interpretation.

Extract 4.27

T: …OK. ***Zheshihou shi jieshi zuo xingrongci huoshi mingci***..***A*** sorry, ***shi***
In this case is explain as adjective or noun Oh is
xingrongci gen dongci de shihou…
adjective and verb case
"OK. In this case it is labeled as adjective or noun.. Oh sorry, it is adjective and verb in this case"

(NNS_C_75-76)

4.3.7 Conclusion

While this study indicates that the teachers' CSs are used mainly for direct pedagogical reasons, including clarifying L2 terms or sentences, providing information and confirming or commenting students' responses, it should be noted that CS in the four participating teachers' utterances is not used for the classroom management that was easily found in the literature. This suggests that CS in this study is not used for managing students' misbehaviour or catching students' attention. The students in the observed classrooms do not have problems of misbehaviour or attention, apart from the students in Teacher B's class. Teacher B's class is less teacher-centered than the other classrooms and therefore students have more freedom to speak to the teacher and the classmates and even to bring up a new topic. The topics in the talk sometimes invite casual chat outside teaching or learning activities. Teacher B's management is involved when he wants to end the students' casual chat and switch their attention to the teaching activity. One example is shown in Extract 4.28 where Teacher B in line 1 tried to end the chat among the students by saying 'sh!' The students did not stop talking in Mandarin. Teacher B in the next turn initiated a new topic and tried to catch the students' attention in lines 4 and 5. The student, Jerry, looked at the teacher and waited for the right time to start his presentation. Teacher B in the next turn successfully stopped his students' chat in

Mandarin and started a new activity. This extract provides an example that the teacher in this study does not deploy learners' L1 for classroom management when it can be done through L2.

Extract 4.28

1. T: Sh!
2. Sx: xxxxxx ((SPEAKING MANDARIN))
3. T: OK. It's OK to write Chinese. You can write Chinese. ((TALKING TO THE
4. STUDENTS WHO ARE WRITING ON THE BOARD)) Alright, go ahead. Everybody!
5. Listen! Sh!
6. Jerry: ((LOOKS AT TEACHER))
7. T: Go ahead … when you're ready.

(NS_B_65-71)

Although the use of CS is attributed to the teachers' incompetence or lack of teaching experience (Polio and Duff, 1994) or of comprehension of the target language (Liu, 2003), this study does not find any case for either of these. In such cases, it finds that various functions may be found in a range of CS-related studies where various teachers with different linguistic and cultural backgrounds practise different teaching approaches to different groups of students in terms of linguistic comprehension, age, ethnic group and gender. In short, it is difficult to generalize the functions of CS for all L2 classrooms because the functions can be various, depending on the teachers, students and language policy (e.g. an L2-only policy) in different countries.

4.4 Summary

The first half of this chapter presents the linguistic structure of teachers' CS. In the quantitative analysis, it notes that intra-sentential CS appears more frequently in the NS and NNS teachers' utterances than inter-sentential CS or tag switches. However, their features are different: NS teachers' intra-sentential CS mainly occurs in L1 and is embedded in the Matrix Language (ML) of the L2. In contrast, the NNS teachers' intra-sentential CS predominantly appears in the L2 and is embedded in the ML of the L1. Even though their intra-sentential CS exhibits different features, they agree that the most frequent CSs as insertions are nouns and the second most frequent CSs are verbs. A descriptive analysis follows, with examples, showing the roles of these three types of CS in the teachers' utterances.

The second half of Chapter 4 examines the pragmatic functions of teachers' CSs. Unlike the previous empirical studies, the present study does not use

pre-defined categories but practises a bottom-up approach to study every single CS that the teachers uttered. A reliability assessment is also involved in which another rater is invited to test the categories stemming from this study. The categories for this study are confirmed after the two raters, the second one and I, agree the categories and their definitions.

The agreed categories for direct pedagogical functions include (1) clarification, (2) information provision and (3) comment and confirmation. They are the main reasons for which all the participating teachers code-switch. In addition, teachers also code-switch for indirect pedagogical functions that include (1) interpersonal functions and (2) discourse marker and interjection. Although interpersonal functions play an important role in many empirical studies, CS appears as only a minority action in this study. Last but not least, 3 instances of CS in this study do not present their functions clearly and they are therefore labeled 'unclassified CS'. As mentioned in an earlier section, the functions of teachers' CS seem to vary depending on the teachers, groups of students and the language policy. Therefore the categorization in this study cannot generalize to all L2 classrooms but provides evidence to illustrate CS with examples from the NS and NNS teachers' EFL classrooms in Taiwan.

Chapter 5 Code-Switching in classroom interaction

5.0 Preliminaries

Classroom interactions aim to help the teachers and students reach the teaching and learning targets. Language in classroom interactions acts as a medium that conveys the messages between teachers and students. The language in a language classroom is more complex than in other classes, e.g. history or geography, because the language a language classroom is not only a vehicle for communication but also a teaching/learning objective.

In order to look at the relationship between CS (code-switching) and classroom interaction, this chapter investigate CS from a social perspective, including its role in different pedagogically focused activities and in teacher-student adjacent interactions. It also presents the extent to which the native speaking (NS) teachers and non-native speaking (NNS) teachers influence the same group of students' utterances when they practice different teaching approaches and employ learners' L1 to different levels and for different purposes. In addition, it tries to see what makes NS and NNS teachers decide their language alternations and examine how the 'English-only' policy influences NS teachers' classrooms while NNS teachers are more relaxed with L2 (as the 'target language') input.

5.1 The organization of interaction in a language classroom

In a micro view of classroom interaction, Seedhouse (2004) proposes a sketch of the interactional architecture of the second language classroom. This architecture is to meet the core goal in L2 classrooms, which is that teachers will teach learners L2. This holds well wherever it takes place and whatever pedagogical framework teachers apply in teaching. It includes three properties. The first property of classroom communication is a language which is 'both the vehicle and object of instruction' (Long, 1983:9). Unlike history or geography classrooms, for example, where the language itself is not the goal, object or focus of instruction, the language used in L2 classrooms is the focus. L2 in L2 classrooms is not only the communicative medium but also the object of the classroom communication. The complex of language makes L2 classrooms different from other classrooms and also makes L2 functions more complicated than in other classrooms.

The second property involves a reflexive relationship between pedagogy and interaction. The interactants constantly display their analyses of the evolving relationship between pedagogy and interaction. In other words, Seedhouse suggests that various pedagogical focuses result in various organizations of classroom communication. Taking Seedhouse's example (2004:185) shown in Extract 5.1, the

first two lines show that the relationship between pedagogy and interaction requires students to repeat whatever the teacher says. S1 displays the same analysis of the current relationship between pedagogy and interaction and therefore 'my name's John Fry' is repeated in line 3. However, in lines 5 and 8, S1 realizes that the relationship between pedagogy and interaction has changed after noticing that the response does not conform to what is required. S1 then changes the analysis of the relationship between pedagogy and interaction by providing his/her real name.

Extract 5.1
T: OK my name's,
Ss: my name's,
T: OK, (.) er, hello, ((addresses L1)) my name's John Fry.
S1: (.) my name's John Fry,
T: oh!
Ss: ((laugh))
L1: my name's Ping. Ping.
T: Ping? yes hello, you say ((whispers)) hello.
L1: hello my name is my name's Ping.
(British Council, 1985:15)

This reflective relationship between pedagogy and the pattern of interaction to some extent reflects Barnes' (1976) belief that teachers control the pattern of classroom communication. Both Seedhouse and Barnes accept that teachers who produce the pedagogic framework hold the pattern of interaction. However, there are different estimates of teachers' control of classroom interactions. Johnson (1995), who applies Discourse Analysis in her classroom observation, notes that teachers play a dominant role in who decides the allocation of speaking turns, when students are allowed to talk and so on. In her observation, teachers fully control the interactions while students play a passive role. Seedhouse (2004) has a different view, believing that teachers own the power of control but the degrees of control can be different for various pedagogical purposes. For instance, a teacher controls speaking turns more in form and accuracy practices which focus on students' L2 production in terms of linguistic forms. However, teachers' control is less powerful in meaning and fluency practices, where students have more freedom to express their feelings and thoughts. The next section, 5.2, provides a more detailed and closer view of the relationship between pedagogy and interaction.

The third property is evaluation and feedback. Seedhouse (2004) observes that the linguistic forms and patterns of interaction that learners produce in the L2

are potentially subject to evaluation in some form by the teacher. Agreeing with Van Lier (1988:32), Seedhouse says that 'everyone involved in language teaching and learning will readily agree that evaluation and feedback are central to the process and progress of language learning' (Seedhouse, 2004: 186). However this does not mean that learners' every L2 production will be followed by the teacher's evaluation. In other words, an evaluation is not necessarily being made immediately after each item of a learner's output. It depends on the pedagogical focus of the interactions. Teachers are expected to be competent at evaluating learners' L2 utterances in order to reach the teaching/learning target.

5.2 Pedagogical focuses in L2 classrooms

Since a reflexive relationship between interaction and pedagogy is the core of classroom interactions, Seedhouse (2004) proposes four types of classroom context in a language classroom reflecting its pedagogical focuses: (1) form and accuracy contexts, (2) meaning and fluency contexts, (3) task-oriented contexts, and (4) procedural contexts. The interactions in each classroom context are presented below.

Form and accuracy contexts focus on linguistic form and accuracy. Their pedagogical purpose lets teachers evaluate learners' L2 linguistic production. Within this type of context, turn-taking and sequence are strictly controlled by the teacher. Extract 5.2, shown below, represents this type of classroom contexts.

Extract 5.2

Episode 1

1. T: now I want everybody (.) to listen to me. (1.8) and when I say you are going
2. to say after me, (.) you are going to say what I say (.) °we can try.°
3. T: I've got a lamp. a lamp. <say after me> I've got a lamp.
4. LL: I've got a lamp.
5. T: (.) I've got a glass, a glass <say after me> I've got a glass.
6. LL: I've got a glass.
7. T: I've got a vase, a vase <say after me> I've got a vase
8. LL: I've got a vase.

((39 lines omitted))

Episode 2

9. T: I've got a hammer. what have you got (Tjartan)?
10. L6: I have got a hammer.
11. T: can everybody say I've got.
12. LL: ((whole class)) I've got.

13. T: fine. I've got a belt. what have you got? (1.0) Kjersti?
14. L7: (.) hmm I've got a telephone
((24 lines omitted))
Episode 3
15. T: and listen to me again. (.) and look at what I've written (.).
16. I've got a hammer, <just listen now> have you got a hammer.
17. L: (1.0) yes
18. T: raise your hand up now Bjorn=
19. L13: =yes
20. T: I've=
21. L13: =I've got a hammer.
22. T: you've got a hammer and then you answer (1.2) yes I have (1.0) yes
23. I have. <I've got a belt>. Have you got a belt Vegard?
24. L14: er:: (.) erm no
25. T: (.) you are going to answer only with yes.=
26. L14: =yes=
27. T: =yes
28. L14: (.) I:: (.) I have
29. T: I have. fine. I've got a trumpet. <have you got a trumpet Anna?>
30. L15: ah er erm °yes I have°
(Seedhouse, 2004: 102-103)

The teacher in Extract 5.2 aims to introduce the language pattern 'I've…' to the learners and focus on form and accuracy. In the first extract, the teacher demonstrates what the students are required to produce in lines 1 and 2 and has the students repeat this afterwards. The student's linguistic form is tightly controlled by the teacher. This can be found in line 10 where L6 says 'I have a hammer' but the teacher in line 11 asks for the use of 'I've got' instead of 'I have got'. In real-world language use, 'I've got' can replace 'I have got' and vice versa. However, the teacher in this classroom context aims to emphasize 'I've got' as the form to learn and therefore constrains all other usage in line 11. In addition, a real-world response is not welcome, as shown between lines 23 and 26 where the teacher requests L14 to say 'yes' to the question. The interaction in this type of classroom context tends to be 'rapid, rigid and lockstep' (Seedhouse, 2004:104). The teacher plays the role of the main director in this form and accuracy classroom context and uses great control to allocate speaking turns. In a form and accuracy focused context, no topic, content or new information can be developed. Kasper (1986) calls this 'language-centered' as opposite to 'content centered'. Guthrie (1987)

similarly terms it a 'form-focused activity', the opposite of a 'content-focused activity'

The teacher, in ***meaning and fluency contexts***, aims to maximize classroom interaction and maximize the learning potential of classroom interaction. The main focus is on fluency instead of accuracy. The learners are encouraged to express their emotions and therefore they have more freedom in classroom talk. In other words, the teacher controls turn-taking and sequence less tightly. There are several possibilities in this kind of context where learners and teacher can vary the degree of control of turn-taking. In some cases, the teacher can still take charge of turn allocation but gives the students much more freedom to speak. Teachers sometimes even let students control both turn-taking and topic-leading. The following Extract 5.3 exemplifies the latter.

Extract 5.3

1. L6: at first you said you had a lot of problems in France about the Russian
2. immigrants, and I think it's the same problem now in West Germany with
3. the integration of East German people in the west part of Germany.
4. L2: yes, but I think it's quite different because (.) er it's the same race. I mean
5. (.) er East and West Germany was the same country before so you are near,
6. and in France it's with Arabian people and we don't have the same
7. culture.
8. L6: but (.) er (.) With nearly 40 years' difference also mean the last 40 years are
9. different and (.) er (.)
10. L2: yes
11. L6: in both countries that I think it's nearly the same. it's not the same [but]
12. L2: [yes,]
13. because religion is a big problem and (.) er I think that between East and
14. West Germany it's the same religion and in France we don't have we have
15. Catholic religion and Arabian people is musulman religion
16. L6: most of the East German people have no religion
17. L2: yes, yes in fact and er the last big problem with the chador. I don't
18. know how we call it in English. it is the thing the woman put on her head?
19. T: in fact it isn't English 'cos it's Arabic, it's the chador. we use the same
20. because it's from the Arabic
21. L2: and er 3 or 4 months ago we had a big problem because some girls want to
22. go to school with this chador
23. L6: or work
24. L2: yes, and the principal of the school don't want that this girl come at school
25. L6: well, I think it's normal when you go in another country you must accept

26. the rules of this country
27. T: mm. we had the same thing, a curious thing, the same thing happened here
28. and the girls in the school wanted to wear the chador
29. L6: uhu
30. T: and we came to a peculiarly British compromise that, yes, they could wear
31. it but only it was in the school colour
32. L2: and the other problem is that er a lot of Arabian people are living in the
33. same place so they, their integration is very hard. they can't be integrated.
34. they are together.
35. L6: they have their own areas

(Seedhouse, 2004: 113-114)

The teacher before Extract 5.3 begins has introduced a carrier topic, the learners' countries. In this extract two learners developed and carried on their subtopic 'immigrants' introduced by L6. L2 takes up the subtopic and carries the interaction with L6. The teacher does not contribute to the interaction until line 18 and 26 when the subtopic is shifted to that of the chador and the teacher is nominated by L2. The teacher takes up in line 29 and tries to develop a new subtopic but it doesn't work out. In terms of turn taking, the teacher is out of the interaction in lines 1-17. The first speaking turn for the teacher in line 18 is even nominated by the learner. The teacher in line 26 nominates herself to take up the turn but the topic is not changed afterwards although an intention to do so is shown in line 27. This extract illustrates the meaning and fluency context where the students are free to take up the speaking turn and the teacher's control of turn-taking and sequence can be relatively low. The teacher does not attempt to correct the linguistic form or errors because this can impede the interaction. This kind of context connects real world interaction to the classroom speech community.

Students play the main role in ***task-oriented contexts*** where they communicate with their peers in order to complete the assigned tasks. The teacher normally leaves the interaction after giving the instructions for the task. The task-oriented context pays no attention to linguistic form or the learner's expression of feelings, but focuses instead on peer interaction, aiming to complete a particular task. The following extract (Extract 5.4) gives an example.

Extract 5.4

1. L1: the road from the town to the Kampong Kelantan (pause) the coconut =
2. L2: =again, again.
3. L1: (.) the: the road, is from the town to Kampong Kelantan (6.5) the

4. town: is: (.) in the Jason Bay.
5. L2: (3.5) again. the town (.) where is the town?
6. L1: the town is: (.) on the Jason Bay.
7. L2: (1.0) the: road?
8. L1: the road is from the town to Kampong Kelantan (10.4) OK?
9. L2: OK
10. L1: (.) the mountain is: behind the beach, and the Jason Bay (8.1) the
11. river is from the jungle, (.) to the Desaru (9.7) the mou-er the
12. volcano is above on the Kampong Kelantan (7.2) the coconut
13. tree is: (.) along the beach.

(Seedhouse, 2004:121)

The design of a task reflects the teacher's pedagogical target. Extract 5.4 presents the 'map' task that is designed to fill an information gap. Two students work in a pair with a screen between them set up to separate them. Each of them has a map but one map has some information missing from the other map and vice versa. In this case, one student needs to get the missing information from the other student. The function of the screen is to force them to communicate verbally only.

The teacher, in ***procedural contexts***, aims to instruct or establish a procedure for work in progress. In this case, there is typically no turn taking because the teacher delivers a monologue and learners keep silent until it is finished. Unlike the previous three types of context, the procedural context is obligatory in every L2 classroom when classroom activities are to be carried out. Extract 5.5 is an example in which the teacher explains the procedures of the activity. The monologue from the teacher need not be long but this one serves the function well.

Extract 5.5

T: now you're going to do their pair work, (1.5) *forest saa spoer dokker saa svar dokker saa skifter dokker ut (0.8), dokker trenger ikke aa ta New York for eksempel dokker kan bytte ut tidene og navnan, skjoenner dokker? (0.8) noen som ikke forstaar?* ((tr.: first you ask then you answer then change, …you don't have to say New York for instance and you can change the times and the names, …do you understand? anyone who doesn't understand?)) (1.5) ok.

(Seedhouse, 2004: 135)

Extract 5.5 interestingly shows the teacher switching to learners' L1 for procedural explanation. Although teachers' utterances in this pedagogical activity are not normally cut off, students may still receive speaking turns in three ways: (a)

students raise hand to request a speaking turn and ask a question relating to procedure, (b) teachers may elect to make the procedural context more interactive by allocating speaking turns to students, and (c) teachers nominate a learner to verify the procedures (Seedhouse, 2004:134-135).

5.3 CS in classroom interactions

This section investigates CS at two levels. It first tries to find the role of CS in each pedagogical context. This gives us a wider view of the relationship between CS and the pedagogical contexts from the perspective of the purpose of CS and turn taking. The second level of analysis focuses on CS in teachers' and students' adjacent interactions. This provides a closer view of the relationship between teachers' and students' language alternations. In addition, the teachers' attitudes towards students' L1 utterances are also analysed. The classrooms of NS teachers and NNS teachers are discussed separately, since their different teaching approaches lead them to use CS differently and view language alternation differently. The first section below presents evidence from NS teachers' conversation classes. Evidence from NNS teachers' reading and writing classes then follows.

5.3.1 NS teachers' conversation lessons

Both of the NS teachers in this study teach 'English conversation' as a subject which aims to develop students' conversational comprehension. The language choice in the NS teachers' classes is influenced by an English-only policy. Both NS teachers were aware of this policy and it is believed that in consequence their English utterances are more than 96% of the total. This section investigates how CS relates to the pedagogical focuses in NS teachers' classrooms. It also examines the relationship between teachers' and learners' language choices between L1 and L2.

5.3.1.1 CS and pedagogical focus

It was found that CS in the NS teachers' conversation lessons appears in 3 pedagogical-focused contexts: (1) the form and accuracy context, in Teacher A's class, in particular; (2) the meaning and fluency context, in Teacher B's class, in particular; the and (3) the procedural context, with only one example, extracted from Teacher A's class.

Form and accuracy context: CS for clarification

One of the main roles that CS plays in an L2 classroom is to clarify L2 lexical items by translation. In Extract 5.6, Teacher A in line 4 asks the meaning of the word 'past' in

L1 and passes the speaking turn to a student, Willy. He gives the right translation in L1, 'chaoguo', and Teacher A follows by repeating it in acknowledgement. He again refers to L1 in lines 8 and 9 to ensure that the other students will understand 'past' and 'past 15 minutes'.

Extract 5.6

1. T: [XXX], does he? Yeah! Because Austin is so tall, it would take ten minutes to get
2. his hand to the top. OK, everybody say that, please, go! It's....[fifteen past ten].
3. Ss: [fifteen past ten].
4. T: So, ten o'clock and what is past? You can speak Chinese with past.
5. Willy: ***Chaoguo***.
   "past"
6. T: ***Chaoguo***. Alright, ten o'clock. And [then we-]
   "Past"
7. Willy: [sit down]. ((SITTING DOWN))
8. T: Not, Willy! I will be really looking at you. It's ten, you know ***chaoguo*** and then
   "past"
9. we *chaoguo shifu fenzhong* fifteen minutes. OK, good good good good good.
   past fifteen minutes
   "past fifteen minutes"
10. What's another way to say past, Willy?
11. Willy: Uh: after!
12. T: Good job, stand up!
13. Willy: ((STANDS UP))
14. Ss: @@@

(NS_A_78-91)

The above extract is a pattern of Teacher A trying to ensure that his students understand the lexical item which is important in the current pedagogical focus. It is also the most frequent function of CS in a classroom (Macaro, 2013:16). A few studies (Tian & Macaro, 2012; Zhao & Macaro, 2014; Saz et al., 2014) provide empirical evidence that it is helps students to learn new L2 vocabulary if teachers provide L1 information on new words in L2. However, the effect may be limited. Tian and Macaro (2012) find the impact of L1 lexical information for L2 lexical items was clearly found immediately post-text but was much less clear after a certain delay. Macaro (2013) is also concerned that the learners may stop using or do not develop their inferencing strategies. In his recent research which studies 13-year-old learners in Oxford, he notes that their inferencing strategies were limited because

'their constant and only strategy was the "cognateness" (they were English students studying French) of the words in the teacher's L2 paraphrase' (Macaro, 2013:19). Thus, switching to L1 may be beneficial for one aspect of students' L2 learning but 'it may come at a cost' (Macaro, 2013: 19).

Form and accuracy context: CS for checking understanding

Echoing one of the functions of CS generated from Guthrie's observed classrooms (1984), Teacher A code-switches to check the understanding of his students. An example is given in Extract 5.7. He translates 'it's already six' into L1 in line 2 and, to ensure the learners are with him, follows this by asking in L1 'dui bu dui?' (right or wrong?) When this teacher receives no acknowledgement from the students, he tries again with the same question and at the same time appoints S1 for a speaking turn (line 4). But S1 is silent, which prompts Teacher A to code-switch to Southern Min[4] for the same question: 'Tioh m-tioh? Si m-si?' (Right or wrong? Yes or no?) He then receives the acknowledgment from S1 that he is with Teacher A in the response 'yes yes'. In this example, Teacher A fails twice to get an answer or attention from the students even though he switches to their L1 to ensure that the question could be properly understood. Hence he switches to the students' native language, Southern Min, and finally gets an answer from the student.

Extract 5.7

1. T: Alright. OK, so, it's six fifteen and you said it's quarter to six. It's already six.
2. ***Yijing*** six ***le***, ***dui*** ***bu dui***?
   already right wrong
   "it's already six, correct?"
3. Ss: xxx

4. T: ***Dui*** ***bu dui***? Say yes or no. ((POINTS TO S1))
   right wrong
   "Is it correct?"
5. S1: ...
6. T: ***Tioh m-tioh*****?** ***Si m si*****?** ((SOUTHERN MIN))
   right wrong yes no

[4] 'Southern Min' is commonly known as 'Taiwanese', a language variety in Taiwan. It is the second most widely used language variety after Mandarin in Taiwan (Lee & Li, 2013:820).

"Is it right or wrong? Yes or no?"

7. S1: Yes. Yes.
8. T: ***Tioh***! ((SOUTHERN MIN)) Good! How- wait, wait, wait. Teresa said, sh
   "Right!"
9. sh sh sh sh! She said, quarter to seven. If I wait a quarter, what time would it
10. be? Hands. ((RAISES HIS HAND)) If I wait a quarter, it will be? ((POINTS TO
11. Willy TO GIVE THE NEXT SPEAKING TURN))

(NS_A_749-758)

Form and accuracy context: CS for highlighting important messages

Teacher B switches to the learners' L1 to highlight an important message in Extract 5.8 (below). A pair of students had been asked to design a dialogue that involved a phrasal verb consisting of 'look' and a preposition. The pair of students who present their dialogue between lines 2 and 7 bring up the key phrase 'look after'. After the presentation, Teacher B comments on it and brings it to the attention of the class that this phrase 'look after' will appear in the test. The L1 term 'xiao kao' (test) ensured that the students did not miss this message in line 13.

Extract 5.8

1. T: OK, let's go.
2. S1: I'm taking my family to vacation abroad?
3. S2: Really? Where are you going to?
4. S1: We plan to go to Vietnam.
5. S2: But …what about your dog?
6. S1: That's a problem. I have to find someone to look after him. Can you help me?
7. S2: OK.
8. S3: ((WAVES TO TEACHER TO SHOW SHE WANTS TO TALK TO HER)) xxx
9. T: xxx, Oh, I have no idea …'advantage'? Remember? OK, good! That was awesome
10. ((CLAPS)) Sorry xxx. Alright, let's write this down first. Look look after ((WRITES
11. ON BOARD)). OK, this is the first one. You have to write this down
12. everybody…because next time we'll have ***xiao kao***. It could be this.
    "test"
13. Sx: ***O, xiao kao, zhen de jia de***?
    Oh test real unreal
    "Oh, a test, is there going to be one or not?"
14. T: So, look after, great, now, who's number two?

(NS_B_34-37)

Meaning and Fluency context: CS for making joke

CS for this function is variously categorized as an 'interpersonal function' (Halliday, 1994) or a 'socializing function' (Flyman-Mattsson & Burenhult, 1999; Liu, 2003) or a 'stance of empathy/solidarity' (Polio & Duff, 1994). They all refer to the same function of CS in the classroom when a teacher switches to L1 to build up a social relationship with the students and ideally to make the students more comfortable in classroom communication. To this end, teachers often make jokes (Polio & Duff, 1994; Liu et al., 2004), and the current research illustrates.

Extract 5.9 presents a dialogue between a student and Teacher A in a meaning and fluency context where the student is expressing his feelings about a teaching activity. The student, Willy, is trying in line 1 to get permission to sit down and Teacher A makes a joke of rejecting his request. Willy in line 4 switches to L1 to comment that his leg was very 'suan' (sore), perhaps due to the lexical gap. Teacher A repeats Willy's comment and makes the students laugh in line 5. He further makes a joke in the same pattern as Willy's: switching to L1 for an adjective and saying 'Oh you are so "lan" (bad)'. This again makes the students laugh. In addition, the extract also shows how a student gets to initiate a speaking turn. In the form and accuracy context, generally initiations are made by a teacher. However, in the meaning and fluency context, students have more chances to initiate a topic: 'because the learners require interactional space to express personal meanings and develop topics, the organization of the interaction will necessarily become less narrow and rigid' (Seedhouse, 2004:111).

Extract 5.9

1. Willy: [Oh, teacher], I stand more times.
2. T: Because you are so smart. You know. You can – when the game is over – n
3. Willy: My leg is very ***suan***.
   "sore"
4. T: Is very ***suan***-
   "sore"
5. Ss: @@@
6. T: XX but after everyone sits down, you can say oh you are so ***lan***, oh you are so
   "bad"
7. ***lan***, you only sit down once. Me? Five times.
   "bad"

8. Ss: @@[@@@]

(NS_A_363-370)

Meaning and Fluency context: CS for an L1 term introduced by a student

Extract 5.10 is another example of an interactional organization where students initiate a new topic in the meaning and fluency context. In this extract, Teacher B, in line 1, passes a message to a team that they will be the next group to present their dialogue. This triggers two separate teaching activities in the classroom. First, another team is writing on the blackboard in preparation for the next activity. Second, an activity took place among the 'audience' – the students and Teacher B. The teacher asks the students not to act as normal. This is a warning to his students to behave themselves in front of the camera. At the same time, it illustrates one of the limitations of classroom recording, which ideally would be expected to capture natural classroom discourse.

It looks as though Teacher B's warning came in vain, because S5 initiated a new topic by asking his teacher to look at one of the girls, S7, in the classroom. Teacher B notes that she looks different and in line 5 asks what has happened to her. Sx in the next turn blames S5 for raising this topic, switching to Southern Min, their native language, to do so. Teacher B notices that something is wrong with S7's ear and asked if S7 has cut it. S5 in the following turn tries to explain through body language and S6 utters the term 'li zhi jia' (hair curler) in L1, due to a limited L2 vocabulary. Teacher B is not aware of this term 'li zhi jia' and thinks that S7's ear has been hurt in the course of a hair-cut (line 11). S7 explains using body language that the wound was not the result of a hair-cut and S8 in the next turn says 'jia toufa' (curl hair) in L1. Teacher B repeats it and switches to L2 to say 'you got a perm', showing that Teacher B has understood it. The translation in L1 here has helped to put right the communication breakdown and continue the interaction between Teacher B and his students.

Extract 5.10

1. T: ((APPROACHING THE STUDENTS)) You guys are the next.
2. Ss: xxxxxxxx ((STUDENTS CONTINUE CASUAL TALK))
3. T: Please don't be yourself. ((I THINK THIS IS A MISTAKE, DUE TO THE RECORDING QUALITY))
4. S5: Durham, see…see the girl. ((POINTS TO S7'S EAR))
5. T: What happened to her?
6. Sx: @@@***Be qi o***. ((SOUTHERN MIN))
   "So stupid"

7. T: What happened to your ear? What happened? You try to cut your ear yourself?
8. In the middle?
9. S5: Uhm uhm ((HOLDING HER HAIR AND TRIYING TO EXPLAIN WHAT HAPPENED))
10. S6: ***Li zi jia***.
    "hair curler"
11. T: You cut your hair and you cut into your ear. ((LOOKS AT S7))
12. S7: No. not cut ((DOES THE ACTION OF HAIR CUT)).
13. S8: ***Jia toufa***.
    curl hair
    "She curled her hair."
14. T: ***Jia toufa***, you got a perm.
    curl hair
    "You curled your hair."
15. S7: Yeah.
16. T: Really?
17. S7: Perm my ear.
18. T: Oh! ((SHOWS SYMPATHY))

(NS_B_44-61)

Procedural context: CS for clarification

According to Seedhouse (2004), the procedural context must appear in an L2 classroom where a teacher 'transmit[s] procedural information to the students concerning the classroom activities which are to be accomplished in the lesson' (Seedhouse 2004: 133). Reflecting Seedhouse's (2004) observation, the procedural context in the current study is structured by the teachers' monologue. An example is shown in Extract 5.11, where Teacher A explains a teaching activity. He switches to L1 in line 2 to clarify 'half past' referring to the 'time' (hour) that is mentioned earlier in the conversation. He follows this by switching back to L2 'It is the last time (in the conversation)' in line 3. L1, in lines 2 and 3, is a 'double checking strategy' (Seedhouse, 2004:136) to confirm students' understanding.

Extract 5.11

1. T: OK, so sometimes, if you are listening to the CD ((DOING THE 'LISTENING'
2. ACTION)) and they say oh half past and they don't [tell] you the time, ***Yinggai shi***,
   should be
3. ***ganggang shuo de na ge*** time. It is the last time. Alright, we will see that later in
   just now said that
   "It should be that time we just now mentioned."

4. our books. OK, go to page, go to next page, go to page one twenty seven, and ask
5. you to write the exercises there. Just look at the clock and choose which one is
6. correct. ((STUDENTS ARE DOING EXERCISES IN THEIR BOOKS AND THE TEACHER IS
7. PASSING THE PAPERS TO EACH STUDENT.))

(NS_A_626-632)

5.3.1.2 CS in adjacent interactions

The language choice in the NS teachers' conversation classes is influenced by the English-only policy. Both of the NS teachers were aware of this policy and it is believed, as noted above, that their awareness brought their L2 utterances to more than 96% of all their utterances. The literature provides evidence to show that teachers' awareness impacts on their language choices in an L2 classroom (e.g. Macaro, 2001; Lo, 2014; Saito, 2014). The language choices if Teacher A and his students shows consistency; his students speak in L2 for 81.2% of the interactions overall. However, Teacher B's predominant use of L2 did not mean that his students reached a similar percentage of L2 use (51.5% of all utterances). This indicates that Teacher A and Teacher B practised this English-only policy to different degrees. This section now qualitatively investigates CS in adjacent interactions and shows how the NS teachers treat the L1 utterances from their students in an English-only classroom.

Student receive permission to speak L1

Many of the students' L1 utterances were made with the permission of the teachers. This permission could be of two kinds. One is a clear permission, e.g. 'you can speak Chinese'. An example is presented in Extract 5.6, above, where Teacher A is trying to clarify the meaning of 'past' by giving permission to a student to translate it into Mandarin and says 'You can speak Chinese with past' in line 4. In addition, a teacher's L1 utterance is made to signal permission to the students. An example is shown in Extract 5.12. Teacher A wishes to explain 'a quarter to four' by asking his student to *jieshi* (explain) for him. The L2 term '*jieshi*' (explain) is a verb that indicates an action required from a student to explain by adding fresh information. At the same time, it shows that the students are allowed to use L1 when only the verb is uttered in L1 and the rest of the utterance remains the same. This can be found when Teacher A repeats students' L1 utterances as an acknowledgement in lines 7 and 9.

Extract 5.12

1. T: Three forty-five. Oh, so ***name congming***, how did you know? OK, alright, so,

"so clever"

2. someone someone…Now they say a quarter to four. Why is the 'four'? Someone
3. ***jieshi*** for me why is it a quarter to four, why why why why?
   "explain"
4. S15: ((RAISES HAND))
5. T: ((POINTING TO HIM TO GIVE PERMISSION TO SPEAK))
6. S15: ***Sige*** quarters
   "four"
7. T: ***Sige*** quarters? That's one. I am confused.
   "four"
8. S16: ***si fen zhi yi***
   four out of one
   "one fourth"
9. T: ***Si fen zhi yi***, uh ha ((FACIAL AND PHYSICAL EXPRESSION SHOWS IT'S NOT
   four out of one
   "one fourth"
10. THE RIGHT ANSWER))…

(NS_A_330-339)

Teacher's response to a student's L1: continuing L2 utterance

Teacher A in Extract 5.13 shows that the students' L1 utterances did not affect the flow of interaction although they are nominally in an English-only classroom. The extract comes from the very beginning of the class. In line 10, Teacher A is checking who is absent. The student Willy then replies 'yes, *bao jian shi*' (the nurse's office). He switches it, leaving a lexical gap. Teacher A follows by repeating Willy's response and filling the lexical gap: 'she is in the nurse's office' at the same time in line 11. He continues to check the next student's attendance in the same utterance. The second L1 is uttered by the student, Francis, who is arguing with Teacher A and asking 'wei shen me?' (why). This L1 term does not work to fill this lexical gap because it is not an unknown word. She is saying to her teacher 'why (me)?' to show that Teacher A has said something untrue. This L1 term serves a social function. Teacher A continues to create a funny story in lines 17 and 18. The two L1 terms in this extract do not influence the flow of the interaction, for the teacher continues his L2 utterances after the students' L1 utterances.

Extract 5.13

1. T: Who else is missing? Jenny, who is your partner?
2. Jenny: ((GOES TO HER SEAT))
3. T: OK OK. Flora. OK OK. And you two. Oh, no! Then Vicky is back there. Who who

4. are these two?
5. Willy: Dabibi
6. T: Dabibi. Oh, Dabibi. Dabibi just asked me X after. An:d
7. S1: Mia
8. T: And Mia. Who is ju:st...
9. S1: Sick.
10. T: Who is sick. Did she come to school today?
11. Willy: Yes. ***Bao jian shi***
    "nurse's office"
12. T: She is in the nurse's office. OK. Alright. An:d… Amy, who is with you?
13. Tina: ((COMES INTO THE CLASSROOM))
14. T: Ah, Tina. OK, good good good. We:ll ((LOOKS AT HIS WATCH)) don't be angry
15. at me. You can be angry at Francis because Francis said
16. Francis: ***Wei shen***[***me***...]?
    "Why?"
17. T: [Her] legs are very sore. I asked why are they sore? She said
18. because we sit down too long. I said oh! I can help you. Everybody…
19. Willy: Stand up.
20. T: Stand up.

(NS_A_2-21)

Teacher's response to student's L1: correction

L1 terms are not always accepted by the teacher. The student, S14, in Extract 5.14 tries to get a speaking turn through an L1 utterance in line 1. It is followed by Teacher B's correction in line 2 and the student further repairs the utterance. This echoes Saito's (2014) study, in which one of the participating teachers gives 'negative feedback' about students' L1 use in an English-only classroom (Saito, 2014: 19). Given that this was only found in one of her participating teachers, Saito notes that the teachers' perspective on students' L1 use influences their treatment of student's L1 utterances.

Extract 5.14

1. S14: ***Wo wo wo wo wo wo wo***.
   "Me me me me me me me."
2. T: You mean me.
3. S14: Me me me me me me
4. T: [me me me]

5. Ss: @@@@
6. T: OK, let's go. ((GIVING THE PAIR OF STUDENTS PERMISSION TO MAKE THE NEXT
7. PRESENTATION))

(NS_B_248-254)

Teachers' response to a student's L1: moving from an interactional breakdown

Interaction breakdown can happen when students do not understand a teacher's L2 utterance. An instance is shown in Extract 5.15, where Teacher B initiates a question in line 1 and does not receive the answer that he expects. Therefore he re-initiates the question in a more specific form to S7 but S7's does not reply. After this breakdown, Teacher B asks again and receives answers from S10 and S16, uttered in L1 in the same speaking turn. Teacher B is not satisfied with this and asks the students to answer 'in English'. The whole class' remains silent and then S3 says 'bu zhi dao, wo wang le' (I don't know, I forgot it). This is the second interaction breakdown in this extract. Teacher B does not repair the breakdown but moves instead to a new topic in the last line.

Extract 5.15

1. T: How did you explain look about?
2. Sx: See...see...around
3. S3: See around?
4. S7: … ((TEACHER IS LOOKING AT S7))
5. T: What did you write? What did you write on the board? ((ASKING S7))
6. S7: …
7. T: No. What did you write for look about?
8. S10 +S16: ***Si chu guan kan***.
   "look about"
9. T: In English.
10. Ss: …
11. S3: ***Bu zhi dao***, ***wo wang le***.
    "I don't know, I forgot."
12. T: OK, go. You are ready? ((TO S14 AND S15))

(NS_B_384-395)

Teachers' response to a student's L1: Making fun of the languages

In an English-only classroom, L1 is normally not welcome. In general, however, both of the participating NS teachers have a positive attitude to learners' L1 utterances. As discussed above, the teachers allocate speaking turns to students to give a lexical

item translated into L1. In addition, the teachers do not treat learner's L1 utterances as an obstruction to interaction. However, to strategically maximize learners' use of L2, teachers either add a correction to their students' words, as presented above, or make fun of their L1 utterance, as in Extract 5.16. When Teacher A passes the speaking turn to the student, Chris, by nominating him, Chris answers '*You*' in L1 (yes, sir). This is a term that a student normally uses to acknowledge a teacher's nomination. This term has a very similar pronunciation to the English 'yo'. This similarity leads Teacher A to make fun of the two terms, presented in lines 9 and 10. It makes the students laugh (lines 8 and 12) and also makes the other students imitate making fun of 'yo' between lines 12 and 16. This actually works as a 'speak English' reminder to his students but in a relaxed way.

Extract 5.16

1. T: Quarter past four. Good, what's another way to say four fifteen? Yes!
2. Irene: Fifteen after four.
3. T: Fifteen after four. ((GUESTURES IRIS TO SIT)) Chris! What's another way? Ho
4. ho ho ((MAKES FUNNY SOUND)) Mr. Chris?
5. Chris: ***You***! ((SOUNDS THE SAME AS 'YO' IN ENGLISH))
   "yes sir!"
6. Ss: @@@ *You*! ((MIMICKING CHRIS' SOUND))
7. T: ***You***:!
   "yes sir!"
8. Ss: @@@@@@@@@@@@@@@@@@@@
9. T: Wait a minute, hold on… Chris, did you give me a Chinese ***you***? Like... you
   "yes sir!"
10. know, I say, Chris, ***you*** ((IT'S THE WAY TO RESPOND WHEN A TEACHER
    "yes sir!"
11. NOMINATES A STUDENT BY CALLING HIS/HER NAME)) or did you just give me a
12. Yo man?
13. Willy: Yo-yo man @@
14. Sx: Yo-yo man.
15. Chris: Yes.
16. Willy: Mr. Yo!
17. Sx: Mr. Yo!

(NS_A_834-849)

5.3.2 NNS teachers' reading and writing lessons

NNS teachers' utterances are different from those of NS teachers in terms of language choice. Unlike NS teachers, who predominately speak in L2, the L1 utterances of both NNS teachers appear in most of their speaking turns. Teacher C's discourse includes 86% in Mandarin, as L1, and Teacher D includes even more Mandarin (96.5%) in her utterances. The significant difference between NS and NNS teachers could result from 2 factors. First, the English-only policy impacts heavily on the language choices in NS teachers' conversation classrooms. NS teachers are aware that it is their job to provide comprehensive English input. However, the same policy is not announced and practised in the NNS teachers' reading and writing classrooms. Therefore the result may be that NNS teachers are more relaxed in terms of language choices. Second, the teaching/learning target of the lesson may also impact on the teachers' language choices. In a conversation class, the students are expected to develop their conversational capacity in L2 and therefore L2 is treated as a major language in the classroom. In developing reading and writing comprehension, comprehensive L2 input in the classroom may not be perceived as the priority.

5.3.2.1 CS and pedagogical focus

In the observed reading and writing classes, Teacher C and Teacher D commonly precede their teaching by referring to articles in English, as the target language. In the reading class, Teacher C focuses on the meaning and form of the content. To do so, she switches to L1 for the meaning of an L2 term or clause and for grammatical structures. Similarly, Teacher D focuses on the meaning and form of the content of an article. Her L1 utterances explain the terms and clauses in L2 and make sure that her students understand the articles correctly. In addition, she analyzes the structure of the article, including ways of opening and closing an article the techniques that it uses to express agreement and argument. In both classrooms, 'translation' plays an important role that helps teachers to make sure that the students correctly understand the articles in L2. Although the Grammar Translation Method is generally perceived as an old-fashioned teaching approach, given the concern for learning effectively in modern classrooms, it is still widely used in some areas (Schjoldager, 2004). Cook (2010) contends that the Grammar Translation Method is worth being promoted in L2 classrooms. However, little empirical research evidence has been provided in the field (Macaro, 2010:286). This section does not intend to advocate the value of the grammar translation approach but instead presents the roles of L1 and L2 in a classroom where a teacher employs such an approach.

Form and Accuracy context: CS for clarification

The NNS teachers' code-switch in form and accuracy context is done only to clarify the purpose. The switching pattern is shown below.

$$L1^{A} \underset{(1)}{\rightarrow} L2^{B} \underset{(2)}{\rightarrow} L1^{C}$$

The first switch (1) shown in the above pattern takes place when a teacher switches from an $L1^{A}$ to an $L2^{B}$. $L1^{A}$ is generally a clause in L1 in the article being used as teaching material. $L2^{B}$ appears when a teacher identifies it as 'an L2 term requiring further information or clarification'. The teacher immediately brings in the second switch (2) shown in the above pattern, when $L2^{B}$ is clarified by $L1^{C}$ by the methods of direct translation (Extract 5.17), indirect translation (Extract 5.18) and providing an explanation of the form (Extract 5.19). Extract 5.17 shows the most frequent pattern of both NNS teachers: switching to L1 for a direct translation of an L2 term. Teacher D in this extract discusses 'igloo', a term in the article in question. In this speaking turn, she begins to explain the structure of the paragraph in L1 (lines 1 and 2) and switches to L2 for 'temperature', as the first switch in the pattern. She then immediately follows by providing an L1 translation 'limian de wendu' (inside temperature), as the second switch in the pattern.

Extract 5.17

1. T: *Kan xia qu, xia yi duan. Suoyi ne, tongxue, ta yiding jixu zai buchong ta de*
   Read, next paragraph. So, students, it must continue add its
2. *lundioa o dui bu dui? Suoyi ganggang zai jiang bing wu, dui bu dui? Na limian*
   statement right or not so just now mentioned igloo right or not Inside
3. *de* **temperature***, limian de wendu,* **inside** *jiang limian. Zhe yige jiegou wu...*
   Inside temperature means inside this construction
4. *zhegu jiegou wu shi zhi shenme jiegou wu*?
   this construction refers to what construction
   "T: Let's read the next paragraph. So, students, it has to further add a statement, doesn't it? So, Igloo that was just now mentioned, right? The **temperature** inside, the temperature inside, **inside** means inside, this construction this construction refers to what construction? "
5. S1: *Bing wu*.
   "Igloo"
6. T: *Sha*?

"What?"

7. S5: *Bing Wu*.
"Igloo"

(NNS_D_169-174)

Extract 5.18 illustrates that the second switch (2) in the pattern occurs for an indirect translation which is formed by a teacher's request for translation and a student's translation. The form of the term 'led to' is discussed in the first 4 lines. By the end of lines 6 and 7, Teacher C has started a new topic, saying 'lead to, led to' which required clarification of the meaning with the following switch to L1 'Zhe shihou daibiao shenme yisi?' (What does it mean in this case?). S12 in the next turn gives its translation 'daozhi' (lead to) to complete the clarification.

Extract 5.18

1. T: …OK *hao*, *women lai kan yixia o*. *Xiao xing yuan pan zhuang de dong xi de*
we have a look small circular object
2. *faming*. OK, quickly *zenme yang*? OK, *shenme jiao* **led to**? **What is led to**? *Ta*
innovation what what is it
3. *shi* **led to** ((WRITING ON THE BOARD)), **led to**, *ta shi nage zi de guo qui shi ya*?
is it is which word past tense

"T: OK hao, let's have a look. An innovation of a small circular object. OK, quickly what? OK, what is **led to**? **What is led to**? It is led to, led to, It is a past tense of which word?"

4. S11: **Lead to**.
5. T: **Lead to**. ((WRITING ON BOARD)) *ta shi* **lead to**. *Tade guo qui shi o*.((POINTING
it is its past tense
6. TO 'LED' ON BOARD)) *Zheshi ta yuanlai de yang zi*. **Lead to**. OK, *lai* **lead to**, **led to**
This is its original form
7. *zhe shihou daibiao shenme yisi*?
this case presents what meaning

"T: Lead to. ((WRITING ON BOARD)) It is **lead to**. Its past tense. ((POINTING TO 'LED' ON BOARD)) This is its original form. Lead to. OK, lai **lead to**, **led to**, what does it mean in this case?"

8. S12: *Daozhi*
lead to
9. T: *Daozhi*, *daozhi*, OK. *Xunsu de fazhang daozhi shenme*?
lead to, lead to quick development lead to what
10. **Portable CD players**. OK, **portable**, *shangci jiang dao*, *shenme shi* portable?

last time mentioned what is

"T: Lead to, lead to, OK. What quick development leads to? **Portable CD players**. OK, portable, what is **portable** that we mentioned last time?"

(NNS_C_96-107)

Teacher C in Extract 5.19 initiates the topic of 'Walkman' in line 1. In line 3, she switches twice to explain the form of 'Walkman'. Teacher C first switches to Walkman (L2) and then switches to provide an explanation in L1 that it is named after its brand. She then switches to Walkman (L2) again and follows this by explaining its plural form in L1 before she moves to the next topic.

Extract 5.19

1. T: S*uishenting. Ta shi shei? Na yi pai de a*?
   Walkman it is who which brand
   "T: Walkman. Who is it? Which brand is it?"
2. Ss: SONY.
3. T: SONY *faming de*. **Walkman** *ta shi ge pinpai de mingzi o*, *ta jiao* **Walkman**,
   create it is a brand name it's called
4. *suoyi fushu bushi* M-A-N *biancheng* M-E-N *ma*? *Shi zhijie zenme yang*?
   so plural isn't become correct It's directly what
5. *Jia 'S'*, **Walkmans**. *You mei you kan dao*, OK, *hao*, OK. *Doazhi zhezhong* similar,
   add have or not seen it OK lead to this kind of
6. *leisi shenme*? Walkman *de dongxi*, *dui bu dui*? *Hao, zailai*, soon after, *lai*,
   similar what thing right or not OK next come
7. *hua xialai*, *shenme jiao* soon after? What is soon after?
   highlight what is

   "T: Sony created it. **Walkman** is a name of a brand. It's called **Walkman** and therefore its plural form isn't M-E-N changing from M-A-N, right? What should it be added directly? Add 's', **Walkmans**. Have you seen it? OK, OK, OK, lead to this kind of similar, what similar? A thing like Walkman, right? OK, next, soon after, let's highlight it, what is soon after? What is soon after?"

(NNS_C_112-116)

Meaning and fluency context: Referring to L2 and following a translation in L1

In the classes of both the NNS teachers, only 3 extracts involving CS featured in Teacher C's utterances in the meaning and fluency context and none was found in Teacher D's utterances. This is due to the fact that both NNS teachers paid major attention to the form and meaning of the content. In one of the few extracts,

Teacher C in Extract 5.20 is checking which section of the teaching material the class has already completed and from which they will continue this session. These turn exchanges occur at the beginning of the session. Teacher C's utterances are conducted in L1 from line 1 to the beginning of line 3 and follow her first switch, which appears in her question 'where did I stop last week?' She immediately switches back to L1 'wo shangci shang dao nail ya?' (where did I stop last time?) for the translation. Teacher C tries to clarify the clause in L2 and therefore switches to L1 for translation at the end of line 3.

Extract 5.20

1. T: Five. *Na zhe yi ke jiushi genju yiqian gei women de yixie ziliao,* OK*.,*
   Then this lesson is based on in the past gave us some information
2. *Hao na women kan yixia zhe yi ke. Zhe yi ke yijing jiang de cha bu duo le.*
   we have a look this lesson This lesson already discussed almost finished
3. *Na women kan yixia,* **where did I… stop last week**? *Wo shangci shang dao nailya?*
   we have a look I last time taught where

"T: Five. Then this lesson is based on the information given to us. OK. Alright, let's have a look at this lesson. This lesson was already discussed and almost completed. Let's have a look, **where did I…stop last week**? Where did I stop last time?"

4. Ss: …
5. T: Ah? **Where did I stop last week**?
6. S2: *Shangci shang dao* XXX.

   "S2: We stop at XXX last time."

7. T: *Meiyou ba*! *Shangci zhi jiang dao danzi ba*.
   No last time only discussed vocabulary

   "T: No! We only discussed vocabulary last time."

8. S3: *Dui*! *Danzi*!
   Right! Vocabulary

   "S3: That's right! Vocabulary!"

9. T: *Dui danzi*, OK. *Hao, xianzai dakai sishi ye*.
   Right vocabulary OK now open forty page

   "T: That's right, vocabulary, OK. OK, now let's go to page forty."

(NNS_C_7-15)

5.3.2.2 CS in adjacent interactions

The teacher-student interactions in the classrooms of both NNS teachers are mainly structured in L1. This can be attributed to the way that the teachers elicit answers to questions. These teacher-centered classrooms are mainly constructed by IRF:

teachers' initiation—student's response— teacher's feedback (Sinclair & Coulthard, 1975). In the observed classrooms, students' responses are set to answer the NNS teachers' questions. As discussed in the above section, CS appears when the L2 terms need clarifying. Translation therefore plays a role in the CS pattern. One of the translation techniques is a teacher eliciting an answer from a student in the form of a translation. Extract 5.18, above, illustrates a frequent teacher-student interaction. Teacher C raises a question, switching to L1 'Zhe shihou daibiao shenme yisi?' (What does it mean in this case?) in line 7 (Initiation). A student in the next turn gives the translation 'daozhi' (lead to) (Response). Teacher C follows by repeating the answer in line 9 to acknowledge it (Feedback).

NNS teachers' questions, as discussed above, lead their students to utter in L1. In addition, the teacher's attitude to L2 use also influences the students' language choices. An example is presented above, in Extract 5.20. Teacher C in line 3 is checking where work stopped in the last session with a question in L2, followed by an immediate translation. She re-initiates the same question in L2 (line 5) after silence from her students (line 4). Although the question is asked in L2, S2 responds in L1 (line 6) and mentions where they stopped in the last session. Unlike NS teachers who continue their L2 utterances after a student's L1 response, Teacher C switches to L1 for feedback (line 7) and the next interactions are continuously made in L1. In comparison to NS teachers, NNS teachers have a very different attitude to L2 input. This discussion is continued in the next section.

5.4 Discussion

On the basis of the above presentation of teacher-student interactions in 5.3, this section discusses further the functions of CS in NS and NNS teachers' interactions with their students.

5.4.1 What makes NS and NNS teachers decide on their language choices?

Does the students' L2 comprehension influence the teacher's amount of L2? Some studies indicate that teachers feel the less L2 the students comprehend, the more L1 is needed (Guthrie, 1984; Macaro, 2001). In other words, teachers code-switch for their students' limited L2 comprehension (Saito, 2014; Samar & Moradkhani, 2014). However, interestingly, this study is not in line with the literature when it shows the teachers do not decide their amounts of L2 input according to the level of English among their students. It provides empirical evidence that an NS teacher uses a great deal more L2 than a NNS teacher does to the same group of students. Teacher A, as an NS teacher speaks 96.8% in L2 while Teacher D, as a NNS teacher, speaks 96.5% in L1 to the same group of students. More or less the same is found

in the other group of teachers and students. Facing the same group of students, Teacher B, as an NS teacher, includes 96.4% L2 while Teacher C, as a NNS teacher, has 86% L1 utterances. This result implies that the students' L2 comprehension in this study does not impact on the teachers' determination of language choices.

What then makes the NS and NNS teachers decide how much L1 and L2 to use in their classes? The literature suggests that teachers' consciousness influences their language alternations. The consciousness comes from 2 main sources: (1) the policy regarding language choice, e.g. an English-only policy (Saito, 2014) or National Curriculum guidelines (Macaro, 2001); and (2) teachers' personal belief, based on their experience (de la Campa & Nassaji, 2009; Edstrom, 2006; Inbar-Lourie, 2010; Li & Walsh, 2011; Hobbs et al., 2010; Samar & Moradkhani, 2014). The policy influences teachers' decisions on language choice. Although the 'English-only' policy may bring conflict and anxiety to the L2 classroom, as discussed in section 5.4.2, below, Ford (2009) notes that 'the teachers seem to make decisions about how to adopt an English-only rule based on their beliefs, experiences, and practical consideration' (Saito, 2014:18). In other words, under the same English-only policy, teachers practise it to different degrees depending on their consciousness of language choices.

A few studies investigate the relationship between personal beliefs and teachers' actual language alternations. Most of them find it positive, i.e. they practise what they believe. In Saito's (2014) work, the L1 utterances of two EFL teachers in a university in Japan were studied. It notes a discrepancy between their amounts of L1 use in relation to their different beliefs. One of the teachers, Kaori, viewed the English-only policy as a goal instead of a means. Therefore she was more relaxed when switching to learners' L1. She also held a relatively positive attitude to the students' L1 utterances. She believed that they would use L2 when they were ready to. In contrast, the other teacher, Akira, believed that English-only was achievable, regardless of his learners' level of comprehension. He implemented English-only throughout his sessions and did not hesitate to give negative feedback to his students when they spoke L1. Similarly Hobbs et al. (2010) conducted a study in secondary schools in the UK and examined how NS and NNS teachers of Japanese practiced their CS. They found that teachers' language choices are 'powerfully influenced by their past experiences as language learners in specific cultural contexts' (Hobbs et al., 2010:58). They note their participating native Japanese-speaking teachers used a great deal more learner's L1 than the non-native teacher who shared the L1 of the students. The native Japanese-speaking teachers in the interview said that they believed the students would not understand classroom instructions in Japanese and therefore it had to be

delivered in English, the learners' L1. One of the NS teachers said 'when it comes to direction, so "you have your worksheets now, what you have to do", I can't really do it in Japanese, because they don't have that much Japanese to understand' (Hobbs et al., 2010:51). In contrast to the NS teachers, the NNS teacher (of British origin) believed that 'the gradual building up of the target language is the ideal really' (Hobbs et al., 2010:54). This study suggests that the teachers' CS choices are consistent with their beliefs and opinions about the importance of L2 input.

In contrast, Macaro (2001) finds the instructors' decision-making does not necessarily stem from their personal beliefs. The 6 participating student teachers were exposed to theoretical and empirical studies of CS in their training programme. Although it was found that very little L1 was used by all the participating student teachers, they did not refer to the literature they had read in the training programme when they described their decision making process in interviews. Copland & Neokleous (2010) even suggest that the teachers' beliefs are not in line with their actual language practice. Four teachers participated in classroom observations that were video-recorded and transcribed and were invited to interviews 10 days after the classroom observations. The teachers expressed the importance of L2 input in the classroom and self-reported their high frequency of L2 use. One of the teachers said in the interview 'you should normally avoid the mother tongue as much as you can' but her statement contradicts her language practice in the classroom.

To sum up, the discussion above shows that some studies conclude that teachers' beliefs influence the language choices in their classrooms but others do not. This study does not include an interview that provides direct evidence, but makes the assumption that the policy and teachers' attitudes to L2 use lead them to different language choices. In this study, an English-only (or No-Mandarin) policy was announced to both the NS teachers. In practice, it seems they did not entirely follow this policy because they both switched to students' L1 for certain functions, as discussed above. However, the amount of L2 that they used shows that they 'maximized' their TL input. It is also reflected in the NS teachers' attitudes to their students' L1 utterances, as discussed above (5.3.1.2). However, NNS teachers seem more relaxed about how much L2 should be spoken in their classrooms because both of them include more than three fourths of their utterances in the students' L1. The discrepancy also appears in the students' language choices. The figure for adjacent interactions presented in Chapter 3 shows that the students speak significantly more L2 in the NS teachers' classrooms than in the NNS teachers' classrooms. In short, the policy seems to lead the NS teacher to consciously focus on comprehensive L2 input and to encourage their students to speak L2.

5.4.2 What makes NS teachers switch to L1 for jokes?

The above sessions examine the roles of CS in the classroom interaction and note that a major function is to clarify the meaning or the form of L2 terms in the classrooms of both NS and NNS teachers. In addition to clarification, it also notes that NS teachers code-switch for 'interpersonal functions' (Lin, 2013) while it does not find that NNS teachers code-switch for the same purpose. CS for interpersonal functions is not new: it is also found in earlier empirical research (Guthrie, 1984; Polio & Duff, 1994; Flyman-Mattsson & Burenhault, 1999; Liu, 2003; Liu et al., 2004; Wei & Wu, 2009). Why in the current study do NS teachers switch to L1 for jokes in order to get their students or the classroom atmosphere more relaxed? The literature suggests that jokes can be used to reduce the anxiety for students.

While anxiety over the target-language-use is discussed from the teachers' perspective (for example, Bailey et. al, 2000; MacIntyre, 1995; MacIntyre & Charos, 1996), Levine (2003) investigates it from the learners' viewpoint by conducting a questionnaire survey. He collected questionnaires from 600 foreign language learners and 163 foreign language instructors and compared their results. First of all, we have to note that the amounts of TL use would vary according to the constellation of interlocutors and communicative contexts. Students use more TL (L2) with their teachers than with other students. Second, around 40% of the participating students agreed with the statement that using TL made them feel anxious, although it is interesting to note that the teachers perceived a higher anxiety in students than the students' self-reports suggested. In short, this study managed to get the students' and teachers' responses and recognized that anxiety exists in an L2- only classroom.

Bruen and Kelly (2014) conducted qualitative interviews with L2 teachers (6 in Japanese and 6 in German) that also illustrate learners' anxiety in L2 classrooms. Several teachers maintained that using L1 does help to create a more relaxed atmosphere in a classroom. One commented as follows:

> it [the L1] is familiar and less intimidating to students. It is also helpful for giving examples of situations where certain phrases are used, or to say something anecdotal. It can also be somewhat of a shock if the students only hear the L2 in the classroom.
> (Bruen & Kelly, 2014:8)

The students' feedback shown below supports the teachers' statement in terms of the anxiety in a L2 classroom.

> I would feel more comfortable with a bit more English (student of Japanese)

> I find it very intimidating when sitting in a learning environment in the [L2] language. (student of Japanese)
> (Bruen & Kelly, 2014:8)

Although the two studies above were conducted by different methods (questionnaires and qualitative interviews), they both present students' anxiety in a L2 classroom, where L1 is found to help reduce anxiety and create a relaxed classroom atmosphere. The current study also echoes this finding: making jokes in L1 also helps NS teachers strengthen interpersonal relations and make the students feel relaxed.

5.4.3 Unrepaired interaction breakdown in NS teachers' classrooms

An interactional breakdown is seen as a very common feature of L2 classrooms. It often occurs when learners do not know a particular word or phrase or do not have the appropriate communicative comprehension (Walsh, 2002:13). Ellis finds 3 types of response by teachers to interactional breakdown. First, a teacher may accept a student's response although it is not an appropriate response to the task. Second, a teacher may repair the interactional breakdown. Third, a teacher may supply a solution or information to fill the gap that caused the breakdown (Ellis, 1985:74). According to Ellis, a breakdown may be repaired as shown in the second and third types of teachers' response, above; or it may not be repaired at all, reflecting the first type of reaction. Schegloff *et al.* (2002) mention that repair is essential in an L2 classroom and its effectiveness depends on the learners' level of L2 and capacity for self-repair. In such a case, L1 is viewed as a tool to repair an interactional breakdown. Chen and Wang observed several primary EFL classrooms in China and noted that interactional breakdowns were often repaired by the teacher's use of translation into Chinese, as a possible strategy (Chen & Wang, 2014: 57).

Although NS teachers in this study mainly switched to L1 for communicative purposes, interactional breakdowns still happened. As in Chen and Wang's findings, the teachers repaired it by switching to L1, as discussed above in Extract 5.10. However, a breakdown may not be repaired. An unrepaired breakdown may impact not only on students' learning but also on teachers' feelings. An example is presented in Extract 5.15, where Teacher B lets a breakdown go because he has decided to start the next teaching activity. If we agree that teachers' questions generally function to help students to reach learning targets, an ignored breakdown might well impact on students' learning. Another unrepaired

breakdown is presented in Extract 5.21 where Teacher A faces an interactional breakdown and finishes this interaction by providing a solution. He initiates a new topic 'when will our class end?' in the first 2 lines and the following exchanges between line 3 and the beginning of line 15 help to figure out that the class will finish at 10:50. It leads Teacher A to introduce another way to express the amount of time remaining to the class. The expected answer is 'the class will end in 30 minutes' but Teacher A does not get this answer from his students. The interactions are switched off because the students remain silent in lines 17, 19 and 21. Teacher A realizes in line 22 that his students have not understood what he wants and tries again to obtain it in line 24. After he is again met by silence in the next turn, he provides the answer and assumes that the cause was a math difficulty and not a language difficulty in the following turn. Teacher A then starts a new teaching activity by playing the audio tape in line 29 and at the same time saying to himself 'Oh no! (line 30) Aaron, you are in big trouble (line 32)'. The failure to bring this interaction back on track makes him frustrated.

Extract 5.21

1. T: So, ladies, tell me, when will our class end? Do you know what time it is now? I
2. guess only Ama would know because she has a watch. When will class finish?
3. Ama: Ten twenty-five.
4. T: AT ten twenty-five? You wish! What time does our class finish?
5. Ss:…
6. Willy: ((RAISES HAND))
7. T: ((POINTS TO WILLY TO GIVE PERMISSION TO SPEAK)
8. Willy: Ten fifty.
9. T: Are you sure?
10. Willy: I am sure.
11. T: It's lunch time.
12. Willy: No!
13. T: Don't we finish five minutes early at lunch time?
14. Willy: Our finish time is ten fifty.
15. T: Ten fifty, OK, so now. ((GUESTURES TO WILLY TO SIT DOWN)) Just to be easy,
16. just to be easy, I'll say right now is ten twenty. When will we finish class? In?
17. Ama+ Irene: …
18. T: Irene? Ama?
19. Ama+ Irene: …
20. T: No guess? Somebody help me? Help them. When will we finish class?
21. Sall: …

22. T: Woo, you didn't get this well. Alright, we will go back to it.
23. Ss: …
24. T: It's ten twenty now. We will finish at ten fifty. We will finish?
25. Ss: …
26. T: In thirty minutes. Maybe this is a math problem not an English problem. All of
27. you are slowly *suan* ((ACTS LIKE HE IS COUNTING)). OK, alright. Two more, one
"count"
28. more, one more.
29. Tape: Page fifteen.
30. T: Oh, no!
31. Tape: One.
32. T: Aaron, you are in big trouble.

(NS_A_500-530)

5.4.4 Translation approaches by NS and NNS teachers

NS and NNS teachers in this study all translate their L2 utterance into L1 for clarification purposes. They use it to different degrees: NNS teachers translate a great deal more than NS teachers do. It is an interesting point to note because the translation approach is adopted in their utterances even though different teaching approaches are practised and they have different teaching targets. NS teachers focus on building up students' conversational comprehension, whilst NNS teachers aim to develop learners' reading and writing ability. Although translation which requires learners' L1 is generally discouraged or banned in modern L2 classrooms, it continues to exist in some of them.

Theoretically a comprehensive L2 input is supported by the advocates who believe in: (1) the L1 = L2 acquisition hypothesis (Dulay & Burt, 1974). This suggests that L2 should be acquired in the same way as L1 is acquired. Therefore a monolingual (L2) environment is stipulated; (2) Krashen's input hypothesis, which claims that L2 should be used exclusively in L2 classrooms. This assumes that students with different competence levels are all able to successfully comprehend the teaching content (Krashen & Terrell, 1983); (3) Long's interaction hypothesis, that students learn how to negotiate meaning in L2 through L2-only. It is believed that students' L2 comprehension will be built up through meaning negotiation in L2. Although the above hypotheses support L2-only classrooms, debates still remain whether to exclude L1 altogether or admit it where L1 is appropriate (more details in Zhao & Macaro, 2014:2-3).

Given that the translation approach is still 'practiced in a more or less modified form, especially in secondary schools, in many parts of the world (Schjoldager,

2004:129), what do the empirical studies suggest? What effect does translation have in an L2 classroom? A few studies compare the effects of L1 use and L2-only in relation to teachers' vocabulary teaching. They all provide evidence that translation, the finding of an equivalent term in the learners' L1, helps students to learn the target language in respect of lexical learning, although these studies infer different levels of the effects of translation. Tian and Macaro (2012) note in their study that the impact of L1 lexical information on L2 lexical information is clear in tests immediately afterwards, but is less clear if the test is delayed. A similar study is reported by Zhao and Macaro (2014). They reveal a slightly different result: that teachers' L1 use, compared to L2-only explanations, may lead to greater vocabulary gains in both immediate and delayed tests. The same result appears in tests of concrete vocabulary (e.g. dog, cat and table) and abstract vocabulary (e.g. democratic, opaque and approachable). Another study conducted by Saz et al. (2014) notes that the abundant use of translation may increase accuracy in the short term but over a longer span, it may negatively affect accuracy and possibly fluency. However, students who use translation in moderation seem to benefit most in this lexical task. In short, the studies which investigate the effect of L1 use show that translation can bring benefits for L2 vocabulary learning.

Beside translation as a teaching approach, it was found in an earlier study that translation plays an important role in students' L2 reading. Kern argues that 'mental translation during L2 reading may facilitate the generation and conversion of meaning by allowing the reader to represent portions of L2 text that exceed cognitive limits in a familiar, memory-efficient form' (Kern, 1994:455). Forty-one students of French at the University of California, Berkeley were invited to this study and divided into three groups according to their French comprehension: namely, high, middle and low. They were given a reading tasks interview to assess their use of translation and other mental procedures when reading French texts. The researcher asked them to read one sentence at a time silently. They were then asked to report what they were thinking as they read each new sentence; for example, what they understood, what they did not understand, how they went about making sense of what they read, whether they made any predictions or inferences, and whether they translated the sentence into English. One of the important results was that students across all three levels translated the French text into English when they read. It was also noted that, when they read French text, the less-comprehending students translated more into English than those with higher comprehension. In such cases, Kern concludes 'when L2 learners become more proficient at reading L2 texts, they will rely less on translation in their efforts to comprehend' (Kern, 1994:455).

When the translation approach or referring to learners' L1 is discouraged or

banned in an L2 classroom, the above research leads us to wonder why, if it brings advantages for L2 learning, it cannot be used appropriately. To define what is 'appropriate', the teaching target needs to be considered. In the observed classrooms, the NS teachers focused on building students' conversation comprehension. Translation may not be needed here as much as it is by the NNS teachers who focused on learners' reading and writing comprehension. In this task, translation helps learners reduce the cognitive load and effectively learn new words.

5.5 Summary

This chapter first investigates the relationship between CS and pedagogically focused contexts. It notes that CS mainly works to translate text in NNS teachers' classes and aims there to reduce students' cognitive load. CS in NS teachers' classes, however, functions for communicative purposes and also for the creation of a relaxing atmosphere. Nevertheless, the common feature of CS in the classes of both NS and NNS teachers is for clarification. This role is important both for a conversation-focused classroom and for a reading- or writing-focused classroom.

At the level of teacher-student interaction, it is noted that teachers' attitudes to L2 use in L2 classroom impact on their and on the students' language choices. In NS teachers' English-only classrooms, the volume of L2 input from teacher or output from students is much bigger than it is in NNS teachers' classrooms where NNS teachers are more relaxed about a pervasive use of L2.

Chapter 6 The Use of *OK* in EFL classrooms

6.0 Preliminaries

OK (also spelled as *Okay*), as a colloquial and informal word, is widely used in utterances (Carter & McCarthy, 2006). It has been discussed in various contexts, the classroom being one. This study agrees on its high frequency although its use is often individual, as discussed in the literature (Fung and Carter, 2007; Levin and Gray, 1983; Liao, 2009 Shahbaz et al., 2013). It also agrees that *OK*, as a lexically free marker plays a unique role in the academic context (Sinclair & Coulthard, 1975; Levin & Gray, 1983; Cater & McCarthy, 2006; Schleef, 2005, 2008; Fung & Carter, 2007; Liao, 2009; Shahbaz et al., 2013). In addition to its frequency and unique functions, this study also finds that *OK* is the marker most frequently found in code-switching. In the observed classrooms, Native-speaking (NS) teachers and Non-native speaking (NNS) teachers switched from Mandarin, as learners' L1, to *OK*, as learners' L2, and vice versa. Although *OK* has attracted much attention in classrooms where English is the only communicative channel, its role as a code-switch in teachers' utterances has not yet been systematically investigated. The first part of this chapter therefore aims to present *OK* as a code-switch in respect of frequency, function and its frequent combination in this study with Mandarin terms (e.g. *OK hao*).

In addition to the role of *OK* as a teachers' code-switch, this study also finds a volume of *OK* used in teachers' English utterances, NS teachers in particular. The second part of this chapter presents its frequency, functions and combinations in English (e.g. *OK alright*). Echoing a selection from the previous studies, it agrees that the use of *OK* by teachers is rather individual and its unique functions in the academic context play important roles in classroom communication.

Finding similar functions of *OK* in discourse in both Mandarin and English, the last part of this chapter discusses possible reasons why the similarities occur and compares the use of *OK* in NS and in NNS teachers. It does not intend to generalize the relationship between the use of *OK* and language choices but proposes, in a quantitative and qualitative manner, to illustrate the pragmatic functions of *OK* in the context of the different language choices by NS and NNS teachers.

6.1 *OK* as the most frequent switch in teachers' discourse

As the most frequent code-switch, *OK* has a pragmatic function in teachers' classroom discourse. To begin with analysis, this section follows the research method that is presented in section 3.3.7 of Chapter 3 and provides the frequencies of the term in teachers' utterances. The functions of code-switch *OK* and the combinations of *OK* and Mandarin terms follow.

6.1.1 Frequency

Code-switch *OK* occurs 121 times in all the participating teachers' utterances. It takes place when teachers switch from Mandarin to *OK* (Extract 6.1) or vice versa (Extract 6.2). It is also inserted into a teacher's utterance which is fully constructed in Mandarin (Extract 6.3).

Extract 6.1

T: *Kan yi xia o*. ***OK***. Invention *shenme*?

Look what

"T: Let's have a look. ***OK***. What is invention?"

(NNS_C_34)

Extract 6.2

T: …***OK,*** *keyi liaojie.* *Na* *women yao* *kan* *lingwai yi pian luo*.

can understand then we want look at other article

"T: ***OK***, this is understandable. Let's look at the next article."

(NNS_D_369-370)

Extract 6.3

T: *Dui danzi*, ***OK***. *Hao*, *xianzai dakai sishi ye*.

Yes vocabulary alright now open forty page

"T: Yes vocabulary, ***OK***. Alright, let's go to page 40 of the text book."

(NNS_C_15)

The frequencies of code-switch *OK* vary among the participating teachers in this study. NNS teachers use it significantly more than NS teachers do, mainly because the latter code-switch less. In contrast to NS teachers' language choice, NNS teachers, most of all Teacher C, include a bigger volume of code-switch *OK* in their utterances. The table below, Table 6.1, shows the raw frequencies of code-switch *OK* in NS and NNS teachers' utterances. It illustrates a significant discrepancy between the NS and NNS teachers and provides evidence that the teachers' use of code-switch *OK* is individual.

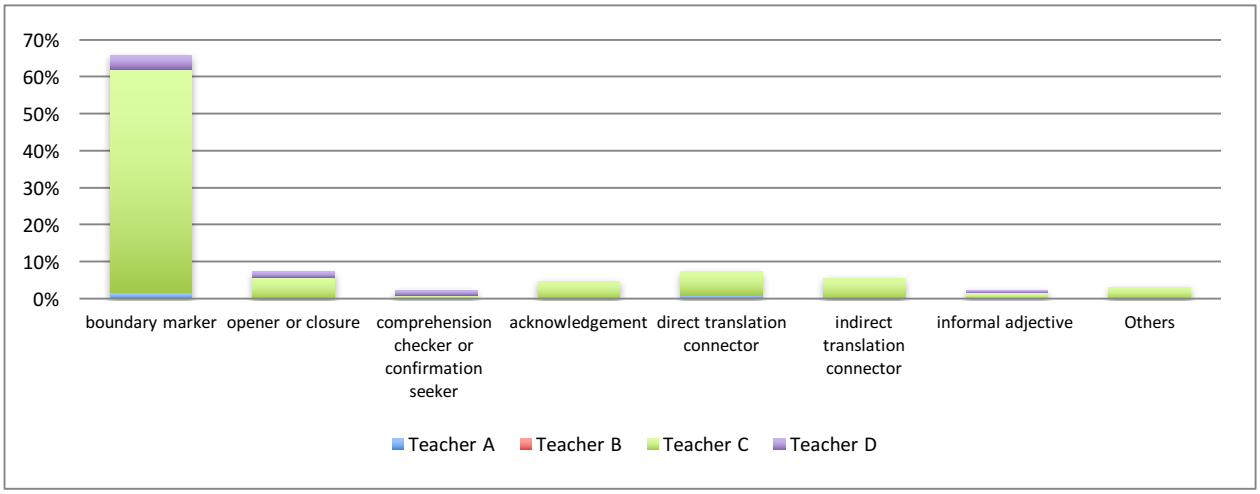
Table 6.1 Raw frequencies of *OK* as code-switch in NS and NNS teachers' utterances

	NS teacher		NNS teacher	
	Teacher A	Teacher B	Teacher C	Teacher D
OK (n=times)	3	0	108	10

6.1.2 Functions

Code-switch *OK* was found in the present study to play various roles in classroom communication. These functions echo, to some extent, a range of previous research which examines *OK* in teachers' monolingual English utterances. Due to the teachers' language alternations, *OK* in this study functions to help with teachers' CS. This adds new findings and discussion to the *OK*-related research. Following the bottom-up approach presented in section 3.3.7 of Chapter 3, *OK* works as a boundary marker, the most significant one of all. It also works as an opener or closure, comprehension checker or information seeker, acknowledgement, direct translation connector, indirect translation connecter, informal adjective and has other functions which are less frequent in this study. Figure 6.1, below, presents the distribution of these functions of *OK* in each teacher's utterances. Each function follows with examples to provide evidence.

Figure 6.1 Functions of code-switch *OK* in NS and NNS teachers' utterances



6.1.2.1 *OK* as a boundary marker

As a code-switch, *OK* functions as a boundary marker in most instances. One example is illustrated in Extract 6.4. In Teacher C's utterance, she repeats her student's response in Mandarin and follows it with a new teaching activity by saying 'Hao, xianzai dakai sishi ye' (Alright, let's go to page 40 of the text book). *OK* in her

utterance not only occurs at a point of language alternation but also opens a new topic.

Extract 6.4

S3: *Dui. Danzi.*

Yes Vocabulary.

"S3: Yes. Vocabulary"

T: *Dui danzi,* ***OK***. *Hao*, *xianzai dakai sishi ye*.

Yes vocabulary now open forty page

"T: Yes vocabulary, *OK*. Alright, let's go to page 40 of the text book."

(NNS_C_14-15)

Although the literature does not investigate *OK* as a code-switch in an L2 classroom, it similarly finds the essential function of *OK* in a teacher's utterances is to mark the discourse boundary. A famous study, which claimed to mark a major step in classroom discourse analysis, was made by Sinclair and Coulthard (1975). They incorporate both linguistic and sociolinguistic traditions in their conception of classroom interaction with minority children in British primary school classrooms and note that the teachers mark boundaries in the discourse by uttering *OK*. Similarly, Schleef (2005) defines *OK* as a 'transition marker' that 'marks information stage transitions to express discourse structure' (p.178). Shahbaz et al. (2013) adopt Stenstroem's (1994) pragmatic function of *OK,* to acknowledge the preceding utterance. All of the above comments actually refer to the same fact: that *OK* marks a discourse boundary.

6.1.2.2 *OK* as an opener or a closure

OK also signals opening (Levin & Gray, 1983; Schleef, 2005; Fung & Carter, 2007) and closing (Levin & Gray, 1983; Fung & Carter, 2007). When *OK* signals an opening, it is placed at the beginning of the utterance. This function It is also found in this study when *OK* occurs at teacher's CS. An example is illustrated in Extract 6.5.

Extract 6.5

T: ***OK***, *women lai kan yixia* MP three. *Lai, zhe yi ke, dakai di sishi ye*.

we come look Come, this lesson, open fortieth page

"***OK***, let's look at MP three. Let's look at this lesson and open at page 40."

(NNS_C_2)

Conclusion *OK* occurs when a lecturer moves from the body of the discourse to the conclusion. It appears in the literature not only in English utterances by lecturers but also in Mandarin utterances by the NNS teachers in this study. An example is shown in Extract 6.6 below.

Extract 6.6

T: *Name, xiangdui de,* opposite *xiangdui de. Zhexie doushi.* ((Ss ARE MAKING
Then opposite opposite they are all
NOTES ON THEIR HANDOUT)). *Hao! Zailai, tongxue, zhege haoxiang*
Alright further students they seem

shangguo, hen kuai guoqu. ***OK*** *keyi laojie. Na women yao kan*
taught very quick pass can understand then we want look
lingwai yi pain luo.
another article
"T: Then, opposite, opposite opposite. They all refer to opposite. Alright, further to this, everybody, this has already been taught. Let's skip it. ***OK***, it's understood. Then let's look at the next article."
(NNS_D_368-370)

6.1.2.3 *OK?* to check progression or comprehension

OK with a rising tone is presented as *'OK?'* which works to check progression or comprehension. This function is not only found in the literature in classrooms where English is the only linguistic form (for example, Liao, 2009; Othman, 2010; Schleef, 2005) but also at CS in the present study. An example is illustrated in Extract 6.7 in NNS teacher D's classroom.

Extract 6.7

T: *Tongxue, zaici tixing tongxue*, *women yijing yandang liangci de kaoshi, xia*
Students again remind students we already postponed twice tests next
libai jiuyao kaoshi, ***OK***?
week test
"T: Students, can I remind you again that we've already postponed the test twice, we'll have it next week, ***OK***?"
(NNS_D_327)

It is interesting that *'OK'* serves different functions in the classroom and

outside of it. Schleef (2005) reviews how in non-academic contexts, *'OK?'* in a form of facilitative question tag is linked to powerless (O'Barr & Atkins, 1980). In this role as a facilitative question tag *OK* takes up more space in women's utterances than men's (Lakoff, 1973), although some scholars argue the use of a question tag depends on who has the powerful role in the conversation, not on gender only (Cameron et al., 1988). However, *OK* as a question tag in a classroom plays an opposite role. It is actually linked to the powerful role of the teacher.

6.1.2.4 *OK* as an acknowledgement

Apart from marking boundaries in discourse, *OK* also functions as a token of acknowledgement in classrooms where English is the monolingual channel. This mainly happens when the teacher acknowledges that the student's response is being heard (Sinclair & Coulthard, 1975). The same function is also found in the current study when *OK* follows/is followed by teachers' Mandarin utterances. An example is shown in Extract 6.8.

Extract 6.8

Sx: *Shoulian*.

"Mastery"

T: *Dui*! *Shoulian*. ***OK***.

"Yes! Mastery. ***OK***."

(NNS_C_416-417)

6.1.2.5 *OK* as a direct translation connector

This function was not discussed in the previous studies where English as a monolingual communicative channel is involved. When looking at a bilingual classroom, it notes that *OK* is used when a teacher code-switches in an utterance. *OK* is used to lead to a direct translation of Mandarin and normally is placed before the translation. An example is presented in the extract below, Extract 6.9. The NS teacher repeats a student's response by saying 'Twenty-nine minutes until twelve'. He then says *OK* and follows it by a translation in Mandarin.

Extract 6.9

T: To twelve. Good job. Twenty-nine to twelve. This is a very strange way to say it ((GESTURING TO S19 TO SIT DOWN)) but you are right. Twenty-nine minutes until

twelve. ***OK***. *zai* *ershijiu* *fenzhong biancheng* 12 o'clock. Good good good
another twenty-nine minutes become
"In another 29 minutes it will become"
good. How about? How about? How do I say this? ((WRITES ON BOARD)) How do I say this time?
(NS_A_400-403)

6.1.2.6 *OK* as an indirect translation connector

In addition to leading to a direct translation from English to Mandarin, *OK* also links to an indirect translation. An indirect translation is formed as a question by a teacher who expects the students to provide a translation in the following speaking turn. The questions are structured in either English or Mandarin and are followed by a student's translation in Mandarin. Extract 6.10 illustrates an example. The teacher says in English 'the invention of compact discs' and then says *OK* which leads to a question requiring her students to translate 'disc' into Mandarin.

Extract 6.10

T: …*suoyi biancheng* The invention of compact… disc. ***OK***, *na* *shenme jiaozuo*...disc?
so become then what call
Shenme yisi *ya*?
What mean
"T: …So it becomes the invention of compact... discs. ***OK***, What does… disc mean then? What does it mean?"
(NNS_C_81-82)

6.1.2.7 *OK* as an informal adjective

OK to denote a satisfactory or unproblematic state or situation, as defined by Carter and McCarthy (2006), is also found in this study at teachers' CS, although this use is relatively infrequent. An example is shown in Extract 6.11.

Extract 6.11

T: *Hao!* *Zhangwo shang xia ju zhijian de* *lianguan, zhangwo shang xia wen,*
Alright control context between consistent control context
jiu ***OK***.
then
"T: Alright! Control and make the context consistent, control the context and then it's ***OK***."

(NNS_D_462)

6.1.2.8 *OK* covering other functions

In addition to the above functions, *OK* also occurs, although infrequently, at points where the language alternates for the following functions.

***OK* between repetition**

It is found that *OK* is uttered before a teacher repeats something. This occurs only twice in this study and an example is shown below. Teacher C in Extract 6.12 translates the word 'form' into L1. *OK* occurs between the repetitions of her translation.

Extract 6.12

T: *Zhege* form... *jiushi xingshi*... *shenmeyang de xingshi*...***OK*** *shenmeyang de xingshio*.
This it is form what is form what is form
"T: This form... it is form... what is form...***OK*** what is form."
(NNS_C_155)

***OK* before self correction**

OK is also used by a teacher when s/he wishes to self-correct. It appears before the correction (Extract 6.13).

Extract 6.13

T: *Kuangre zhe a. zhege zi shi dui mouxie shi de kuangre zhe ya! Jiao*
Fanatic this word is to certain things fanatic call
fan...fanitic...***OK***...fanatic.
"T: Fanatic. This word is fanatic in relation to certain things. It's called
fan...fanitic...*OK*...fanatic"
(NNS_C_227)

6.1.3 *OK* and its Mandarin combinations

It is noticeable, in the current study, that *OK* does not always appear alone; it sometimes appears with certain combinations. A similar concept of the combination is discussed in the literature. Sinclair (1991) explores the dependent and independent meanings of the co-occurring words and the relation of texts to grammar. He calls the word being studied the 'node' and any word that appears in

the specified environment of a node as 'collocate'. When a collocate occurs more often than a node, he classifies it as an upward collocate; when it occurs less frequently than a node, it is classified as a 'downward collocates'. A node and its collocate are not necessarily adjacent. Sinclair provides an example of the upward collocation of 'back', including preposition, e.g. 'into', adverbs, e.g. 'now' and conjunction, e.g. 'as', pronoun, e.g. 'her', possessive pronoun, e.g. 'my' and verb, e.g. 'get'. Similarly, the examples of downward collocates of *back* are presented in Sinclair (1991:118). To differentiate downward and upward collocates, Sinclair gives a quantitative definition to each (1991:116).

If compared with Sinclair's collocation, Schleef's (2008) *OK,* which co-occurs with other markers, seems to be discussed in a looser sense. He notes in the lecturers' discourse that 64 out of 105 tokens of *OK* occur in combination with other structure markers, for example, 'now' or with the markers that suggest topic initiation, for instance 'so' and 'well'. Wang et al. (2010) look at the 'combinations' with the Mandarin discourse markers, '*hao*' and '*dui*' in a quantitative manner. They note that it very often co-occurs with the final particles that follow these two discourse markers. For example, in '*hao ba*', '*ba*' is the final particle that follows the discourse marker '*hao*'. *OK* and its combinations are also found in the current study. *OK*'s combination can appear either before or after it. Because this study is interested in the pragmatic functions of *OK* and its combinations, Sinclair's 'collocation', which includes a restricted definition of frequency and the study of the grammatical structure of a collocate, does not fit in. In such cases in the present study, I call the words that co-occur with *OK* 'combinations'.

To provide a quantitative overview, Table 6.2 illustrates the distribution of *OK* and its Mandarin combinations among all the participating teachers' utterances. This type of combination (*OK* + Mandarin or Mandarin + *OK*) occurs only in NNS teachers' utterances. The combination '*OK hao*' appears more frequently than any other.

Table 6.2 The distribution of *OK* and its Mandarin combinations in both NNS and NS teachers' utterances

OK + Mandarin	Teacher A	Teacher B	Teacher C	Teacher D	Total	
	Times	Times	Times	Times	Times	%
OK hao	0	0	19	1	20	65%
dui *OK*/*OK* dui	0	0	4	0	4	13%
OK lai	0	0	6	1	7	22%
Total	0	0	29	2	31	100%

These combinations also play a role which indicates *OK*'s pragmatic functions in the teachers' discourse. They are discussed in detail in the following sections.

6.1.3.1 *OK* hao

Hao, Mandarin term is viewed as parallel to *OK* in terms of functions (Miracle, 1991; Wang & Tsai, 2005). *Hao* alone usually appears at the beginning of a speaking turn and is used to introduce a new topic, express agreement and accept a request (Wang et al., 2010). Similarly, '*OK hao*' predominantly serves to mark a boundary in the NNS Teacher C's utterance (Extract 6.14). In two utterances (one from Teacher C and the other from Teacher D), *OK hao* appears at the beginning of their speaking turn. One example is presented in Extract 6.15.

Extract 6.14

S14: ((READ THE PARAGRAPH))

T: *OK*. *Henhao.* ***OK. Dui****, yao duo lian ... yinwei yao duo lian jiu hui*
very good need more practice because need more practice become
hen shun. ***OK hao*** *lai*. Popularity. What is popularity?
very smoothly

"T: *OK*. Very good. ***OK. Dui***, more practice is needed…you will read it very smoothly when you practice more. ***OK hao*** *lai.* Popularity. What is popularity?"

(NNS_C_443-445)

Extract 6.15

T: ***OK, hao****! Zhe yi duan, hanshui. Duibudui? Hao! Jiexialai o. Zhege qishi shi* B *la*
this paragraph sweat right next this actually is
ho, na women shibushi gai jie xia yi duan cai dui?
we or not should continue next paragraph correct

"T: ***OK, hao***! This paragraph's a sweat, right? *Hao*! Next, this actually refers to B. Shall we move to the next paragraph?"

(NNS_D_213-214)

6.1.3.2 *OK* dui/dui *OK*

'*Dui*' in Mandarin, like '*hao*', is frequently used at textual and interactional levels in casual conversation. It functions as a 'continuity marker' and 'agreement marker' (Wang et al., 2010:225). The combination '*OK dui*' or '*dui OK*' appears only 4 times in NNS Teacher C's utterances but it is excluded from the discourse of other

participating teachers. Each of them is actually similar to the function of independent 'dui'. An example is shown in the first line of Extract 6.14 above. '*OK dui*' follows Teacher C's positive comment ('*OK* very good'). It continues the topic of the student's reading capacity and the further advice that more practice will help her to read it smoothly. The combination '*OK dui*' can be seen as a continuity marker which continues the previous utterance and at the same time it is a boundary marker that develops the topic to a further stage.

6.1.3.3 *OK* lai

'*Lai*' in Mandarin lexically means 'come'. In classroom language, '*lai*' alone is sometimes used by a teacher who is inviting the students to join a learning activity. The combination '*OK lai*' appears at the boundary. In Extract 6.16 below, Teacher C translates 'plug into' in Mandarin and moves to the forms of 3 tenses of 'plug' by asking a student. '*OK lai*' functionally further develops the first half of the teachers' utterance and also invites the student to participate to get the answer to her question in the second half of the utterance.

Extract 6.16

S14: *Chatou*.
"Plug."

T: *Dui! Chatou! Cha dao nali qu jiao* plug into. Plug into ((WRITING AT THE
Right plug plug into a place called
SAME TIME)) *Cha dao nali qu jiao* plug into. ***OK lai***, *wo wen yixia tongxue o.*
plug into a place called I ask students
Plug *de guoqushi san tai ne*? *Banzhang* ((NOMINATING)).
past three tenses Class representative
Plug *san tai*.
three tenses

"T: Right! Plug! Plug into means "plug into". Plug into ((WRITING AT THE SAME TIME)). Plug into means "plug into". ***OK lai***, let me ask one of you. What's the three tenses of 'plug'? Class representative ((NOMINATING)), three tenses of plug."

(NNS_C_387-390)

6.2 *OK* in teachers' English utterances

In line with the literature (Sinclair & Coulthard, 1975; Levin & Gray, 1983; Cater & McCarthy, 2006; Schleef, 2005, 2008; Fung & Carter, 2007; Liao, 2009; Shahbaz et al.,

2013), the participating teachers in this study, the NS teachers in particular, use *OK* for various functions in utterances which are fully constructed in English. This section first presents the frequency of the teachers' use of *OK* in their English utterances. It follows by illustrating its functions with examples and its English combinations (e.g. *OK alright*).

6.2.1 Frequency

Echoing the result in the literature (for example, Levin & Gray, 1983; Liao, 2009) and the finding of code-switch *OK* in the present study, the use of *OK* is individual. Table 6.3 shows that NS teachers utter a greater volume of *OK* in their English utterances than NNS teachers do. This finding reflects teachers' language choices- NS teachers speak more English while NNS teachers speak more Mandarin.

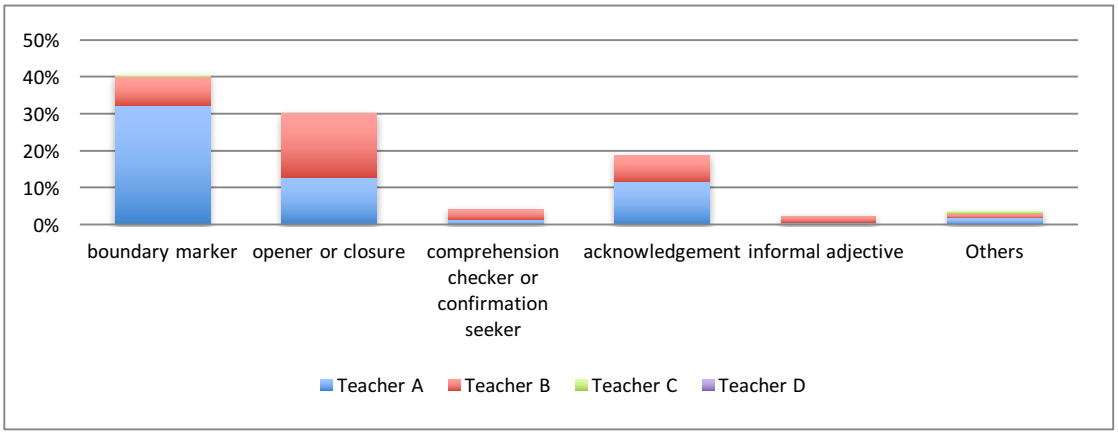
Table 6.3 Raw frequencies of *OK* in English utterances used in NS and NNS teachers' utterances

	NS teacher		NNS teacher	
	Teacher A	Teacher B	Teacher C	Teacher D
OK (n=times)	99	64	2	0

6.2.2 Functions

The distribution of *OK*'s functions in each teacher's English utterances is presented in Figure 6.2. Like Mandarin utterances, it mainly works to mark boundaries. In addition, it often functions as opener and closure in English utterances. In general, the functions are the same as those for code-switch *OK*, apart from '*OK* as direct translation connector' and '*OK* as indirect translation connector' which are used for language alternation.

Figure 6.2 Functions of *OK* in NS and NNS teachers' English utterances



6.2.2.1 *OK* as a boundary marker

In line with many previous studies (Sinclair and Coulthard, 1975; Levin and Gray, 1983; Fung and Carter, 2007; Liao, 2009; Shahbaz, Sheikh and Ali, 2013), *OK* in this corpus plays the role of marking the discourse boundary. The extract below, Extract 6.17, shows an example. This conversation took place at the beginning of the session where the teacher was checking the attendance of the students. The teacher was checking a student's attendance and, after uttering *OK,* went on to check the attendance of another student. This *OK* works by helping the utterance proceed to the next topic. This same function is also found in previous research, although the terminology is slightly different. Sinclair and Coulthard (1975) call this function a 'marking boundary' (p.40); in other studies, the same function is categorized as 'transition marker' (Schleef, 2005; Liao, 2009).

Extract 6.17

T: Who is sick? Did she come to school today?

S1: Yes, *baojian shi*.

nurse's office

"Yes, the nurse's office."

T: She is in the nurse's office. ***OK***. Alright. And...Amy, who is with you?

(NS_A_11-13)

6.2.2.2 *OK* as an opener or a closure

OK can also be the first word spoken when a teacher starts a new speaking turn. This is illustrated in Extract 6.18. This function is actually different from the *OK* that the teacher uses to get the attention of the students. Levin and Gray (1983) distinguish the *OK* which works to open an utterance from the *OK* to attract attention

by calling the latter 'the 'attention-getting *OK* which may occur at the start of the talk and which is uttered with a full voice while the speaker looks at the audience' (p.197).

Extract 6.18
T: ***OK***, let me hear your dialogue.
(NS_B_74)

OK can works to close an utterance, as well, and is uttered last, as shown in Extract 6.19.

Extract 6.19
T: Uh ha ha. I am very happy then. ***OK, OK.***
(NS_A_743)

6.2.2.3 *OK* as an acknowledgement

Echoing the previous studies (Sinclair and Coulthard, 1975; You, 2011), a teacher says *OK* to acknowledge a response from a student. On some occasions in this study, either *OK* or a teacher's repeating a student's response signals acknowledgement. Some utterances even show that a teacher includes both of them to acknowledge a student's response. It is found that *OK* is uttered before or after a repetition of a student's response. Extract 6.20 below presents an example in which the repetition and *OK* work together to acknowledge a reply from a student.

Extract 6.20
T: Go ahead, Joan.
Joan: Two ten.
T: Two ten, ***OK***, alright. It's two ten. ((WRITES ON BOARD)) Very good. Alright. Well done, alright. Next one. ((STARTS THE TAPE))
(NS_A_179-182)

6.2.2.4 *OK?* As a comprehension checker or a confirmation seeker

OK is also used to check students' comprehension and ask for their confirmation. It appears with a rising tone after it and therefore it is labeled *'OK?'.* Whether it checks comprehension or asks for confirmation, it normally appears at the end of the utterance although it is not necessarily followed by a student's response. Extract 6.21 shows an example in which the teacher checks a student's comprehension by

saying *'OK?'* Another example, in Extract 6.22, presents the teachers' *'OK?'* which functions to ask for confirmation from his student.

Extract 6.21
T: Just like the word 'until' but sometimes we will say it quickly. If you say what time is it, I'll say it's twenty till four. Just means it's the same as 'to', ***OK?***
(NS_A_611-613)

Extract 6.22
T: Dabibi, you wanna flip a coin? ((DOES THE ACTION OF FLIPPING A COIN))
Dabibi: …
T: Let's flip a coin, ***OK*****?**
Dabibi: …
(NS_A_679-682)

6.2.2.5 *OK* as an informal adjective

Like code-switch *OK*, *OK* in teachers' English utterances denotes a satisfactory or unproblematic state or situation, as defined by Carter and McCarthy (2006), although this use is relatively infrequent. In Extract 6.23, below, the teacher says *OK* to tell the students who were presenting their dialogue on the stage that it is not a problem if they write Mandarin on the board.

Extract 6.23
T: *OK*. It's ***OK*** to write Chinese. You can write in Chinese. ((TALKS TO THE STUDENTS WHO ARE WRITING ON BOARD)) Alright, go ahead. Everybody!
(NS_B_67-68)

6.2.2.6 Other functions

Apart from the above functions, *OK* also serves other functions in an English utterance; in this corpus this happens quite rarely.

***OK* between repetition**

It is found that *OK* is uttered before a teacher repeats something. This occurs only twice in this study, and one example is shown below. The repetition with *OK* ahead of it in Extract 6.24 leads to the end of the topic and is followed by a new topic, *OK,* and then the repetition.

Extract 6.24

T: At, at, I get up at- *OK*, Willy. No no no, Willy is too noisy. I want to hear someone who is not so noisy. Oh, Dora, never mind. ***OK***, never mind. Uh! Let's see. Joan...what time do you get up?

(NS_A_981-983)

_OK_ to get attention

OK used to get attention is also found in previous studies. Levin and Gray (1983) identify the difference between *OK* to get attention and *OK* to open an utterance. An attention-getting *OK* 'may occur at the start of the talk and is uttered with a full voice while the speaker looks at the audience' (Levin & Gray, 1983: 197). One of the two instances in the present study is shown below (Extract 6.25).

Extract 6.25

T: ***OK***. ((FULL VOICE)) Sh! Listen listen listen.

(NS_B_533)

6.2.3 *OK* and its English combinations

OK appears frequently with English combinations, presented in Table 6.4. The combinations, '*OK* alright', '*OK* so' and '*OK* good/good *OK*' are the most frequent uses.

Table 6.4 The distribution of OK and a combination in English in both NNS and NS teachers' utterances

OK + English	Teacher A	Teacher B	Teacher C	Teacher D	Total	
	Times	Times	Times	Times	Times	%
OK OK	4	0	3	0	7	10%
OK alright	22	3	0	0	25	33%
OK so	14	3	1	0	18	24%
OK let's/let me	0	10	0	0	10	13%
OK good/good *OK*	13	2	0	0	15	20%
Total	53	18	4	0	75	100%

6.2.3.1 *OK OK*

NS teachers' repetition, '*OK OK*' mainly initiates an utterance or signals a topic change. The extract below, Extract 6.26, shows that Teacher A starts an utterance by the first combination of '*OK OK*'. The second combination of '*OK OK*' is followed by a new topic.

Extract 6.26

T: ***OK OK***. Flora. ***OK OK.*** And you two. Oh, no! Then Vicky is back there. Who who are these two?

(NNS_A_4-5)

This finding is not in line with Levin and Gray (1983), who note that the repetition embeds hesitations. They provide an example shown below in Extract 6.27 where a pause and a marker to show hesitation (uh) appear between the repetitions. The repetition is also found in Shahbaz et al.'s (2013) study, which finds that the native Mandarin EFL teachers include a larger volume of discourse marker *OK* than native English EFL teachers do. They comment that the native Mandarin EFL teacher 'does use [*OK*] appropriately at occasions but extensive overuse makes it look superfluous and formulaic' (2013:84), illustrating it by the example in Extract 6.28.

Extract 6.27

T: Why don't we discuss this later on because I still have a few more things to cover? [Pause.] ***OK.*** [Pause] and [Pause] uh [Pause] ***OK.***

(Levin & Gray, 1983:197)

Extract 6.28

T: Now, what is mosaic, ***OK***, It is kind of, ah similar to, Ah, Intermingle ***OK, OK***, conversation ***OK***, Mosaic means, but I think you have find the word mosaic. *OK*…

(Shahbaz et al., 2013:84)

6.2.3.2 *OK* alright

In this combination, '*OK*' and '*alright*' are deploy for similar functions. Beach (1993) finds *OK* and *alright* to be functionally equivalent in telephone calls. A similar finding is presented in Schleef's review (2008:64). However, some studies note a difference between *OK* and *alright*, reviewed by Filipi and Wales (2003:432). Turner (1999) has looked at *OK* and *alright* in telephone calls and suggested that '*alright* was deployed to mark a shift in topic at the macro level resulting in a major topic shift, while *OK* was associated with shifts to the sub-topics or to the topic focus' (ibid: 432).

In Filipi and Wales' corpus, *OK* and *alright* were deployed as response tokens, confirmation requests, understanding checks and agreement-eliciting tokens, third turn acknowledgement tokens, markers of closure and markers of next phase, topic, topic focus, activity and spatial perspective. Although they serve the same functions, it is noted that *alright* appears to be more restricted, since it overwhelmingly occurs as a response token. In contrast, the use of *OK* is relatively unrestricted; no particular function overweighs other functions. Although *OK* and *alright* are spread among the functions at different levels of volume, they do exhibit similar functions in Filipi and Wales' corpus.

This may be due to the fact that *OK* and *alright* are functionally similar. The combination '*OK alright*' appears most frequently among all participating teachers' utterances and serve a wider range of functions, including marking discourse, opening an utterance and acknowledging a reply. In terms of the order of the combination, the paper notes that '*OK*' is followed by '*alright*' in most cases, while only one instance of '*alright OK*' is found in this study. Extract 6.29 gives an example of Teacher A using this combination '*OK alright*' to open his utterance.

Extract 6.29
T: ***OK, alright***, one dollar, right. So, four quarters is one dollar…
(NS_A_153)

6.2.3.3 *OK* so

In teachers' discourse, Sinclair and Coulthard view the purpose of '*so*' as 'helping the pupils understand the structure of the lesson but this time by summarizing what the preceding chunk of discourse was about' (Sinclair & Coulthard, 1975: 43). The 'summarizing' function is reflected in Mueller's (2005:68) functions of lexical '*so*'. In addition, *so*, at a textual level of functions, works to (1) mark result or consequence, (2) mark main idea unit, (3) summarize/reword/give an example, (4) lead to a sequence, and (5) mark a boundary (Mueller, 2005:68).

Although the above research finds that '*so*' works to summarize the previous discourse, it is not found, in the present corpus, that '*OK so*' serves a similar function. However, most of the instances of this combination appear to mark a boundary, in particular in the utterances of NS Teacher A. In Extract 6.30, Teacher A is trying to help his student to get the right answer by giving him a hint word 'half', followed by a pause. The student then continues to say 'past eleven'. Teacher A in the next turn first repeats the correct answer, 'half past eleven', and evaluates it by saying 'good'. He then moves to the next teaching activity that clarifies the meaning of 'half'. In addition to marking a boundary, the combination '*OK so*' functions to open a new

utterance in Extract 6.31 and to acknowledge a reply from a student in Extract 6.32.

Extract 6.30
T: Half…
S13: Past eleven.
T: Half past eleven, good. ***OK, so*** someone tell me, what is 'half'?
(NS_A_293-295)

Extract 6.31
T: ***OK, so***...yeah, you said you got to look out, be careful, watch out. *OK*, good. One more couple. Uh… who wants to be the last one? You, then you, then you, then you. ((RECALLS WHICH STUDENTS HAVE PRESENTED)) Uhm, yes, did you XXX? Or Erma and…Flora.
(NS_B_499-502)

Extract 6.32
T: Our clock has sixty, alright, so *si fen zhi yi*...is how many minutes?
a quarter
"T: Our clock has sixty, alright, so a quarter is how many minutes?"
S1: Fif...teen.
T: Fifteen, ***OK, so*** a quarter is fifteen minutes.
(NS_A_121-123)

6.2.3.4 *OK* let's/let me
This combination is used only by the NS teacher B. He favors leading his students to the next teaching activity after uttering '*OK* let's/let me'. Moving to the following teaching activity is labeled a 'boundary marker' in this study. Therefore, it contributes to the higher volume of this function than of others. An example is illustrated in Extract 6.37.

Extract 6.33
T: Yeah! ***OK. Let's*** see the sentence, guys.
(NS_B_489)

6.2.3.5 *OK* good/good *OK*
Sinclair and Coulthard (1975) mention 'good' as one of the words/phrases used by a teacher to evaluate a student's reply. It is uttered 'with a high fall intonation, and

repetition of the pupil's reply with either high fall, (positive) or a rise of any kind, (negative evaluation)' (Sinclair & Coulthard, 1975: 43). Although the corpus of the present study does not find the high-fall tone suggested by Sinclair and Coulthard, the combination of '*OK good*' or '*good OK*' actually conveys a positive comment to the student/students. An example in Extract 6.34 illustrates Teacher A's repetition of S20's reply to acknowledge its correctness after saying '*OK good*'.

Extract 6.34
S20: Three to one.
T: Happy New Year. ((MAKING FUN OF THE RESPONSE)) ***OK good***, three, two, one.
Ss:@@@
(NS_A_407-409)

6.3 Discussion

Bearing in mind the above presentation regarding the function of *OK* as a code-switch and its role in English utterances in the observed classrooms, below we discuss their roles and compare NS and NNS teachers in making use of them.

6.3.1 Individual frequencies of *OK* use

Sections 6.1.1 and 6.2.1 separately illustrate how teachers' use of *OK* is. What does the figure look like when both types of *OK* are analysed together? Collecting all the *OKs* uttered by NS and NNS teachers, Table 6.5 presents the raw frequencies showing that NS teacher A and NNS teacher C uttered more *OKs* than any other teachers. Teacher D uttered fewest. Table 6.6 below further provides information of *OK*'s normalised frequency (the number of *OKs* per 1000 words) that makes possible a comparison with previous studies. The same calculation was used in a range of the earlier studies (for example, Levin and Gray, 1983; Fung and Carter, 2007; Liao, 2009; Shahbaz, Sheikh and Ali, 2013).

Table 6.5 Raw frequencies of *OK*s in NS and NNS teachers' utterances

	NS teacher		NNS teacher	
	Teacher A	Teacher B	Teacher C	Teacher D
Total *OK* (n=times)	102	64	110	10

Table 6.6 Normalised frequencies of DM *OK* used by NS and NNS teachers (Frequency represents the number of times per 1000 words)

	NS teacher		NNS teacher	
	Teacher A	Teacher B	Teacher C	Teacher D
Total *OK*	3.5	3.4	2.0	0.9

Table 6.6 presents that NNS Teacher D utters significantly less *OK*, being compared to the NS teachers, Teacher A, Teacher B and NNS teacher, Teacher C. It, at the same time, indicates that the frequency is individual. This finding is actually in line with some earlier studies (Levin and Gray, 1983; Liao, 2009). Liao's (2009) studies 6 NNS teaching assistants who led the classroom discussions in a research university in California. They are all native Mandarin speakers and studied English formally for more than 8 years. Liao's figure 'frequency of DMs in discussion' (Liao, 2009:1318) illustrates the variety which ranges from 2 times of *OK* per 1000 words to 14 times of *OK* per 1000 words. This discrepancy is even bigger than the current study.

The variety of frequency is also well presented in the 10 NS lecturers' talk in Levin and Gray's (1983) study. Although they calculate the frequency in a different way, the result shows similarity. They look at the quantity of *OK* in each lecturer's various lengths of talking time and also look into their rates of speech. In terms of the frequency, the difference spams from none of *OK* appear in one lecturer's 30-minute lecture to 27 times of *OK* in the other lecturer's 30-minute lecture.

Why does the rate of frequency vary among the lecturers? Levin and Gray (1983) attribute the variation to 3 factors. First, the number of *OK* is positively correlates to the speed rate. In other words, the faster the lecturer speaks, the more frequently *OK* is used. They agree with the cognitive psychologist's belief '[a lecturer] had ordered his lectures in a serial fashion in terms of the number of points he wanted to cover. His looking down and saying *OK* meant that he had just covered a point he wanted cover, and that he was prepared to go on to the next point. The *OK* acted like a check mark on the list. The necessary circumstances of such use of *OK*, then is a plan spread out in time, by the lecturer, so that when he pauses he tells himself that he is satisfied with the previous coverage and is prepared to go on the next point' (p.199). Second, the frequency is in relation to the tasks instead of the setting. They believe those tasks with 'an agenda' (p.199) that list the activities or topics to be covered prepare the lecturers to say *OK* when they switch from one topic to the next one. Third, they observe that a younger lecturer would use *OK* more frequently than an older lecturer although this point was not further elaborated in their publication.

In this study, *OK* appears 3.5 times per 1000 words in Teacher A's utterances and 3.4 times per 1000 words in Teacher B's. Although Levin and Gray made the above assumptions why teachers' rates of *OK* use are individual, both Teacher A's and Teacher B's rates of *OK* are similar although their teaching 'agendas' are very different. Teacher A has relatively organized items in his agenda. He systematically covers his teaching procedures, from one to another. Teacher A is in the position to lead the discussion, assign the speaking turns to the students and decide what is the next item to be delivered. Differently, Teacher B has a relatively relaxed agenda. In his class, his students present orally in pairs and this activity makes his role assist students to delivery their presentations smoothly, for example asking the students on duty to clean the blackboard for the next group's presentation. His role is also to correct the errors and also correct students' misbehaviour, for example stopping students chatting too loudly. In this case, his group of students has more 'freedom' to speak up and this reflects in the length of his students' talk, the most among the 4 observed classrooms.

6.3.2 Major function across the language choices: boundary marker

The above sections of 6.1.2.1 and 6.2.2.1 clearly show that *OK* marks the boundaries across the language choices and it significantly appears with this function more than any other. This discrepancy is relatively prominent when *OK* acts as a code-switch.

In monolingual English contexts, Teacher A, Teacher B and Teacher C all utter *OK* to mark a boundary; this function applies to over 40% of all the utterances of *OK*. Although NNS Teacher C has only 1 *OK* in an English utterance which may not be sufficient for further discussion, it is interesting to note that both NS teachers often use *OK* to mark the boundary between a response and a new topic which is very often a teaching act. In Extract 6.35, below, Teacher B's students in pairs presented dialogues involving phrasal verbs consisting of 'look'; for example, 'look up' in the extract below. S20 and S21 presented their dialogue on the stage in the first three lines and Teacher B then acknowledged it by saying '*OK*, alright' followed by clapping as a compliment. He followed this by uttering '*OK*, cool, now' before leading the students to look at the paper he provided. *OK* here marks the move from a response to a new teaching act.

Extract 6.35

S20: I am looking up a new word in a dictionary.

S21: Do you want me to give you a hand?

S20: No, thank you. I think I am *OK*.

T: *OK*, alright. ((CLAPPING)) ***OK***, cool, now. Please take a look at this paper.

(NS_B_538-541)

Code-switch *OK* predominately serves to mark off a discourse (65% of the total). Just as NS teachers' *OK* in an English context leads to a new teaching act, NNS teachers' *OK* also appears with the same function in monolingual Mandarin and in bilingual contexts. An example is shown in Extract 6.36, where Teacher C in the last utterance started with a response to the student then uttered *OK* and finally went on to ask the students to move to page 40 of the textbook.

Extract 6.36

T: *Meiyou ba! Shangci zhiyou jiangdao danzi ba.*
No last time only mention vocabulary
"T: No! We stopped at the section of vocabulary at the end of the last session."

S3: *Dui. Danzi.*
Yes Vocabulary.
"S3: Yes. Vocabulary"

T: Dui danzi, ***OK***. *Hao*, xianzai dakai sishi ye.
Yes vocabulary now open forty page
"T: Yes vocabulary, *OK*. Alright, let's go to page forty of the text book."

(NNS_C_13-15)

In addition to marking off a new teaching act, the NNS teachers' *OK* leads to a further explanation of the previous utterance, illustrated in Extract 6.37, where Teacher C tried to explain how to form of the word 'domination' from 'dominate' directly after uttering '*OK*. Domination'. *OK* here links the English utterances and leads to a further explanation.

Extract 6.37

T: Dominate the market. ***OK***. Domination *shi tade mingci la....qu* e *jia* i-o-n,
is its noun remove add
OK, *hao.* *Women lai kanyixia....di er....*
alright We come look at the second
"T: Dominate the market. *OK*. Domination is a noun....remove "e" add "ion", *OK*, alright. Let's look at....the second...."

(NNS_C_270-271)

OK in the NS teachers' classrooms serves to mark a topic change and a further development of the topic, based on the observation from Levin and Gray (1983).

Both these functions are also found in both NS and NNS teachers' utterances across various language contexts. The NS teachers' *OK* works particularly as a move to the next teaching act while the NNS teachers' *OK* is used more often for a further clarification of the previous utterance. The difference may stem from their different focuses in teaching. In order to comprehend students' speaking capability, the NS teachers pay attention to giving speaking turns to their students and therefore *OK* is inserted for interactional purposes. But the NNS teachers focus more on the grammatical structure of a clause and the form of a word. This brings more opportunities for *OK* to further develop or explain the previous clause.

6.3.3 NS teachers and NNS teachers

Most of the previous research compares native speakers and non-native speakers in an English-speaking context. A common result shows that native English speakers use DM (discourse marker, e.g. *OK*) more frequently than non-native speakers do. In this study, the comparison between NS and NNS teachers is in fact not on the same basis as the literature suggests. This is because the teachers' language choices of English and Mandarin make this comparison more complicated. However, the result of this study and the literature show some interesting similarities. First of all, the literature suggests that native speakers generally utter more DMs than non-native speakers do. In this study, although the NS and NNS teachers speak both English and Mandarin in their classrooms, the NS on average utter more *OKs* than the NNS teachers do. Therefore in terms of frequency, this study also shows a higher frequency of *OK* in NS teachers' discourse than in NNS teachers'. However, although the literature finds that non-native speakers utter fewer discourse markers because they are less competent in the language than are native speakers, this study does not reflect it. As illustrated above in 6.1.1 and 6.2.1, the *OKs* uttered by NS and NNS seem to be predominantly in their native language, English for NS teachers and Mandarin for the NNS teachers. This indicates that, although *OK*s are involved in their languages of competence, NS teachers still utter more *OKs* than NNS teachers do, as shown in Table 6.6. Therefore the influence of language competence in this study does not seem to have an impact.

In addition to frequency, it is also interesting to note that *OK* in Mandarin utterances serves similar functions to *OKs* in English utterances. As shown in Figure 6.1 and Figure 6.2, apart from the two functions which are used for translation, the functions of *OK* in Mandarin utterances, mostly from NNS teachers, also appear in English utterances which come mainly from NS teachers. The following section looks at this more closely.

6.3.4 Similar functions in English and Mandarin utterances

Why is *OK* so well accepted in the Mandarin utterances of the NNS teachers? *OK* is a word from English but it is widely used in Mandarin contexts. Yuan (2012) conducted a survey in China among 182 Chinese people in various groups. They were grouped by age, educational background and profession. The ages varied from teenage to adult. The educational background included senior high school and lower, university degree and master's degree levels. The professions ranged from students, farmers, and blue-collar workers to white-collar workers. The selection of the subjects who took this survey shows that Yu examined the use of *OK* among a wide range of people. The survey asked the subjects to reflect on their own habits and assess the frequency of *OK* use. The five options in this regard from low to high were 'rarely use', 'sometimes use', 'normally use', 'usually use' and 'frequently use'. Although the results show that most of them 'normally used' *OK*, the median option, the loan word *'OK'* was accepted across the groups by 71% of the total. It was used more in face-to-face conversations with classmates, friends and colleagues than otherwise. The interlocutor was limited because *OK* is seen as an informal word and consequently the subjects felt less comfortable about using it when they spoke to their teachers or those in a higher position at work, i.e. management.

Why does *OK* play a similar role in English and Mandarin utterances? It should be noted that *OK*s in NNS teachers' utterances take similar roles to those in NS teachers' English utterances. *OK* seems to some extent to be accepted and adopted in the language of a wide selection of Mandarin speakers, as discussed above. However, as regards function, why are they similar? Several researchers indicate that *OK* and the Mandarin term '*hao*' have pragmatic similarities. Miracle (1991) notes in his study that the usage of *hao* is close to *OK* when *hao* marks the transition between topics and the closing of a topic. Wang and Tsai (2005) have studied '*hao*' and compared it in two sources of data, casual conversations and interactional texts related to radio interviews and call-ins. Both sources show that *hao* functions to mark a discourse transit. *Hao* also appears when acknowledging or agreeing with the previous turn of an utterance. Wang and Tsai say ' [s]imilar to English *[OK]*, *hao*, which is used to respond to a prior turn and also indicates a readiness to close the current exchange and/or move on to the next stage of the talk or the next topic of discussion, is a free-standing receipt marker employed by both the recipient and the current speaker' (Wang & Tsai, 2005:226)'. A more recent study (Wang et al., 2010) collects 594 instances of *hao* in a 24.5-hour daily conversation corpus and investigates the non-propositional (i.e. textual and interpersonal) functions of *hao*. In line with the earlier studies (i.e. Miracle, 1991;

Wang & Tsai, 2005), Wang et al. believe that Mandarin *hao* is parallel to English *OK*. *Hao* alone in their corpus usually appears at the beginning of a speaking turn. It is used to introduce a new topic, express agreement and accept a request.

In addition, *hao* in classroom discourse also shows similar functions to *OK*. He (2000) has conducted a study of the Chinese language classrooms which were offered to Chinese-American children whose parents were from a Chinese background and who were living in the United States. She notes that in her observed classes *hao*, as a discourse marker, was used by the Mandarin native speaking teachers before an imperative. An example is presented in Extract 6.38, where the teacher first says '*hao*' and then asks the students to put it into parentheses. An instructional activity initiated by the teacher is proposed after the discourse marker, *hao* alone or after *hao* with *OK*, as shown in Extract 6.39 where the teacher, after saying '*OK hao*', asks the students to write as s/he does.

Extract 6.38
Ts: ***Hao*** *zhe yang ba ta kuahu qilai*.
like this put it parentheses
"*Hao* like this put it in parentheses"
(He, 2000:124)

Extract 6.39
Ts: *OK* ***hao*** *gen laoshi yiqi xie.*
follow teacher together write
"*OK hao,* write with me"
(He, 2000:124)

In short, although the above does not provide direct information that the use of *OK* in a Mandarin context is related to the Mandarin *hao*, it is what Wang et al. suggest (2010) – that *hao* can be viewed as parallel to the English *OK*. The similarity between *hao* and *OK* may be one of the reasons that NNS teachers who are Mandarin native speakers utter *OK* to provide the same functions in a Mandarin context to those provided by NS teachers in an English context.

6.4 Conclusion

As the most frequent code-switch, *OK* plays a significant role in teachers' discourse and helps with classroom communication. While a range of available studies looks at *OK* in a classroom where English is the only channel, this study contributes by looking at the performance of NS and NNS teachers using *OK* in teachers' CS. In

addition to code-switch *OK*, *OK* is also used extensively and individually in teachers' English utterances, those of NS teachers in particular. The results show that *OK* is preferred by the NS teachers in the English context and by NNS teachers in their CS. This finding reflects the teachers' native languages. In terms of frequency, it echoes the finding in the literature that NS teachers utter more *OK*s than NNS teachers do, but we should bear in mind that the literature and this study do not compare like with like. The literature compares NS and NNS teachers in the context of mono-English discourse but the classrooms observed in this study are bilingual.

With regard to functions, *OK* plays similar roles in teachers' CS and in their mono-English utterances. In addition, some new functions are generated in this study. Apart from the functions found in the earlier research, this study finds that *OK* serves other functions, related to translation. In addition, the functions are similar for English and Mandarin utterances, although *OK* connects to a translated word in a Mandarin utterance which is not found in English utterances. *OK* in language alternation mainly leads to the explanation of an earlier term. This implies that the teachers who make use of the marker are focusing on the cognition load of the students. They are making sure that the students understand a term when, according to the teachers, they may find difficult. *OK* co-occurs with its combinations, which include English terms (*OK*, *alright*, *so*, *let's/let me* and *good*) and Mandarin terms (*hao*, *dui*, *lai*). These combinations also play a role in signaling the functions that accompany *OK*.

Chapter 7 Conclusions

To conclude the study, this chapter presents what has been contributed to the field of CS (code-switching) in foreign/second language classrooms. This follows a brief comparison between native and non-native speaking teachers and a summary of the findings in this study. Finally, it discusses the limitation of this study and makes some suggestions for future research.

7.1 Contribution of this study

The role of learners' L1 (first language) in an L2 (foreign language or second language) classroom has been debated over decades (more details in Chapter 2). The advocates of 'L2 only' believe that L2 learning should be like L1 learning. Hence, learners' L1 should be banned in an L2 classroom. However, a range of empirical studies provides evidence that learners' L1 does help to smooth the classroom communication and enhance the students' learning efficiency. While this topic still remains debatable, the present study aims to provide another angle from which to look at language alternation in an L2 classroom – it asks how native-speaking (NS) teachers and non-native speaking (NNS) teachers code-switch. Comparisons between NS and NNS teachers' language alternations have not hitherto been widely offered, but given that these teachers are all teaching a target language to their students, we cannot neglect this topic. This study therefore adds to the studies which examine NS and NNS teachers' classroom discourse.

Although CS is not a new topic and has been widely researched, this study aims to add weight to the following fields. Firstly, the linguistic structure of CS has been investigated in various natural contexts but it in classroom discourse research is still at an early stage. This study closely investigates NS and NNS teachers' linguistic structures of CS and compares its result with the literature. Secondly, the pragmatic functions of CS have also been discussed in a volume of studies. Different to a range of previous empirical studies that either adopt pre-defined categories or exclude consideration of the subjectivity that might be caused in the process of categorization, this study develops its own categories and has two persons involved in categorization and its reliability assessment. Each CS is studied and classified. It tries to provide a relatively objective view on CS functions. Thirdly, the relationship between CS and pedagogical activities within teacher-student interactions is still at its infancy. It, in this case, does not discuss its form and function; instead it focuses on a wider interpretation how CS performs in various pedagogical activities, in turn-takings and in teachers' attitudes. Lastly, *OK* in NS and NNS teachers' bilingual discourse has not been elaborated widely yet. At its beginning stage, this study

contributes to investigate NNS and NS teachers' *OK* use and how *OK* performs in code-switching and in English utterances.

7.2 Brief comparison between NS and NNS teaches

Aiming to add to the studies which look at the language input by NS teachers and NNS teachers, this study examines CS and the use of *OK* by 2 NS and 2 NNS teachers. It lists the similarities and differences in the observed classrooms as shown below.

Similarities:

1. NS and NNS teachers talk more in class than their students, although one of the NS teachers talked slightly less than his students did.
2. NS and NNS teachers' language choices and their students' language choices in adjacent interactions are mutually related.
3. NS and NNS teachers all favoured intra-sentential CS.
4. NS and NNS teachers all utter a large volume of *OK,* although it serves various functions for teacher-student interactions.

Differences:

1. NS and NNS teachers favor different functions of CS. The preferences reflect their different teaching approaches and targets.
2. NS and NNS teachers use CS differently in interactions. It is believed that teachers' beliefs decide their language choices.
3. NS and NNS teachers have different attitudes towards their students' L1 utterances.

7.3 Summary and discussions of findings

Following the contribution presented above, this section provides a summary to answer the research questions in turn.

7.3.1 NS and NNS teachers talk more than their students in classes.

The distribution of TTT (teacher talking time) and STT (student talking time) is found consistent in the NNS teachers' classes where the teacher controls most of the speaking time and the topics. This enables them to occupy more than 90% of the total speaking time. The result in the NS teachers' classes is different. One of them, Teacher A, like the NNS teachers, occupies most of the speaking time and controls the speaking turns and topics. Teacher B, the other NS teacher, utters less

than his students and lets them have more freedom in initiating topics and taking speaking turns. What differentiates TTT from STT is the different design of the classroom activities. This study, at the same time, echoes the claim in the literature that students take a passive role in classroom interactions (Bellack et al, 1966; Dunkin & Biddle, 1974; Chang 2004; Todd, 2005) unless they own the power of controlling the speaking turns and topics.

7.3.2 NS and NNS teachers' and their students' language choices are mutually relevant

In line with some studies (for example, Üstünel, 2004 and Chang, 2009), this study also notes that teachers' language choices relate to those of their students. This result is found in a macro view (of interactions overall) as well as a micro view (of adjacent interactions). Comparing the teacher's and students' language choices in overall interactions shows that the NS teachers mainly speak the learners' L2 (English) while the NNS teachers mainly speak the learners' L1 (Mandarin). This is consistent with the students' language choices. The same group of students uses more L2 in the NS teacher's class but speak more L1 in the NNS teacher's class. The same result is found for both groups of students. Looking at the adjacent interactions between teacher and students, it notes that students follow the teachers' language choices. It notes that teachers follow their students' language choices in many cases. While admitting the limited data resources in this study, this finding suggests that, in adjacent interactions, teachers' and students' language choices are relevant.

7.3.3 NS and NNS teachers favour intra-sentential CS in their utterances.

In a quantitative analysis, this study notes that intra-sentential CS appears more frequently in the NS and NNS teachers' utterances than does inter-sentential CS or tag switches. However, their features are different: NS teachers' intra-sentential CS mainly occurs in L1 and is embedded in the matrix language of L2. In contrast, NNS teachers' intra-sentential CS predominantly appears in L2 and is embedded in the matrix language of L1. Even though their intra-sentential CS exhibits different features they both show that the most frequent CS as an insertion comprises nouns and the second most frequent CS consists of verbs.

7.3.4 The pragmatic roles of CS in NS and NNS teachers' utterances.

Unlike previous empirical studies, the present study does not use pre-defined categories but practises a bottom-up approach, studying separately all the CSs that the teachers uttered. A reliability assessment was made and confirmed by two

raters.

The agreed categories for direct pedagogical functions comprise (1) clarification, (2) information provision and (3) comment and confirmation. They are the main functions for which all of the participating teachers code-switch. In addition, teachers also code-switch for indirect pedagogical functions, chiefly (1) interpersonal functions and (2) discourse marking and interjection. Although interpersonal functions play an important role in many empirical studies, CS for indirect purposes appears only as rarely in this study. In the last group, three instances of CS do not present their functions clearly and they are therefore labeled 'unclassified CS' in this study. As mentioned in the earlier section, the functions of teachers' CS seem to vary according to the teachers, the groups of students and the language policy. Therefore the categorization in this study cannot be generalized to all L2 classrooms but provides evidence to illustrate it by its examples in the context of the NS and NNS teachers' EFL classrooms.

7.3.5 Various roles of CS in the interactions between NS/NNS teachers and their students.

This study also investigates the relationship between CS and pedagogically focused contexts. It notes that CS mainly works to translate text in the NNS teachers' classes and is aimed there to reduce the students' cognitive load. The CS in the NS teachers' classes, however, functions for communicative purposes and also to create a relaxing atmosphere. Nevertheless, the common feature of CS in the classes of both NS and NNS teachers is for clarification. This role is important both for an NS teacher's conversation-focused classroom and for an NNS teacher's reading- or writing-focused classroom.

At the level of teacher-student interaction, it is noted that the teacher's attitudes to L2 use in L2 classroom impacts on his/her and on the students' language choices. In the NS teachers' English-only classrooms, the volume of L2 input from teacher or output from students is much greater than it is in the NNS teachers' classrooms, where the teachers are more relaxed about a pervasive use of L2. This gives the NS and NNS teachers who teach the same group of students significantly different approaches in terms of language choice. However, comprehensive L2 input does not always serve to smooth the classroom interaction. Communication breakdowns are sometimes found in the NS teachers' classes. L1 in this case may step in to reconnect the conversation between the teacher and the students.

7.3.6 The roles of *OK* in NS and NNS teachers' utterances.

As the most frequent code-switch, *OK* plays a significant role in teachers' discourse and helps with classroom communication. While a range of available studies looks at *OK* in a classroom where English is the only channel, this study contributes by looking at the performance of NS and NNS teachers using *OK* in teachers' CS. In addition to code switched *OK*, *OK* is also used extensively and individually in teachers' English utterances, those of NS teachers in particular. The results show that *OK* is preferred by the NS teachers in the English context and by NNS teachers in their CS. This finding reflects the teachers' native languages. In terms of frequency, it echoes the finding in the literature that NS teachers utter more *OK*s than NNS teachers do, but we should bear in mind that the literature and this study do not compare like with like. The literature compares NS and NNS teachers in the context of mono-English discourse but the classrooms observed in this study are bilingual.

With regard to functions, *OK* plays similar roles in teachers' CS and in their mono-English utterances. In addition, some new functions are generated in this study. Apart from the functions found in the earlier research, this study finds that *OK* serves other functions, related to translation. In addition, the functions are similar for English and Mandarin utterances, although *OK* connects to a translated word in a Mandarin utterance which is not found in English utterances. *OK* in language alternation mainly leads to the explanation of an earlier term. This implies that the teachers who make use of the marker are focusing on the cognition load of the students. They are making sure that the students understand a term when, according to the teachers, they may find difficult. *OK* co-occurs with its combinations, which include English terms (*OK*, *alright*, *so*, *let's/let me* and *good*) and Mandarin terms (*hao*, *dui*, *lai*). These combinations also play a role in signaling the functions that accompany *OK*.

7.4 Limitations of the present study and suggestion for future studies

This is a relatively small-scale study that involved 200 minutes of classroom observation, video recording and field notes. It generated a 24,752-word corpus that collected 422 tokens of CS and 286 instances of *OK*. It provides a close observation of the use of CS and *OK* in some depth. As mentioned by Denscombe (2014:38), the advantage of a small-scale case study is that it enables the researcher to focus on particular questions and it also gives some flexibility of approach or method according to what fits in the study. In addition, it allows the researcher to take a holistic view and look in depth at complex phenomena. However, it may not be able to provide credible generalization based on its findings, due to the size of the

data. The focus should be on the process instead of the outcomes, as Denscombe suggests (2014:39).

Despite the advantages and contributions of this study, its first limitation is the size of the data. Hence, in lieu of generalizing the outcomes, it aims rather to provide data to illustrate NS and NNS teachers' language alternations in the context of a small-scale study. The second limitation is that the NS and NNS teachers in the study were teaching different subjects. Because their classes had different teaching and learning targets, they practised different teaching approaches in class. This may influence their discourse in terms of the functions of CS and *OK*. These limitations should be borne in mind when the NS and NNS teachers' CS and *OK* are compared and analysed in the previous chapters.

For future research, there are three recommended directions. First, certain categories of CS functions and *OK* functions arise from this study. Since this study adopts a bottom-up approach and studies every single instance of CS and *OK*, I would suggest that the categories should be tested with more data. Second, while a few studies have started to measure how effective CS is when applied to grammar teaching (Viakinnou-Brinson, 2006) and the learning of lexis (Tian & Macaro, 2012; Zhao & Macaro, 2014), more studies should be encouraged to provide evidence for its use. This would be a way of participating directly in the debates whether the learners' L1 should or should be involved in foreign/second language teaching. Finally, whilst teachers' discourse has attracted a range of research, students' discourse still requires more attention. It would be interesting to investigate the roles of students' CS and *OK* although very limited examples of either are found in the present study.

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